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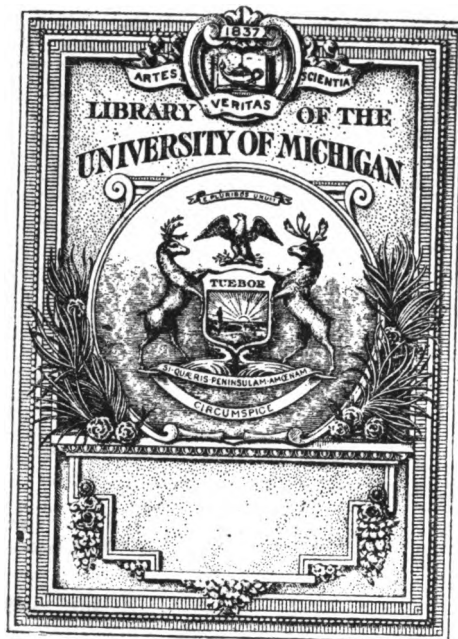
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Ill. State board of health.
ILLINOIS HEALTH NEWS

"THE GREATEST WEALTH OF THE COMMONWEALTH IS HEALTH"

**ILLINOIS STATE BOARD OF HEALTH
OFFICIAL MONTHLY BULLETIN**

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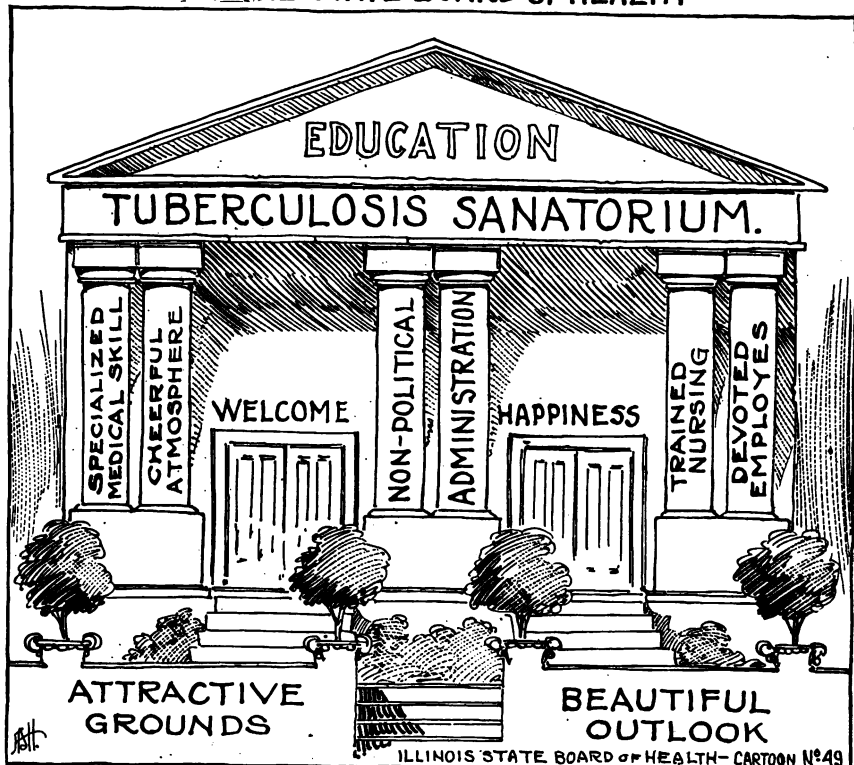
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Vol. III, No. 1.

JANUARY, 1917.

New Series

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ILLINOIS HEALTH NEWS

[Printed by authority of the State of Illinois.]

This bulletin will be sent free on request addressed to the Secretary, Illinois State Board of Health, Springfield, Illinois.

VOL. III, No. 2.

FEBRUARY, 1917.

NEW SERIES.

DAIRY INSPECTION.

A Protection to the Consumer and a Source of Increased Profits to the Dairyman—Suggestions to Producer and Consumer.

[By PAUL L. SKOOG, Chief Dairy Inspector, Illinois State Board of Health.]

ONE OF THE IMPORTANT FEATURES in the work of the State Board of Health made possible by the Forty-ninth General Assembly was the establishment of a Bureau of Dairy Inspection. For the most part, the milk supply in Illinois is controlled by the various municipalities. While these cities and villages have no authority over dairies lying outside their corporate limits, they are able to exercise a certain amount of control by refusing to permit the sale within their limits of milk from dairies which fail to come up to certain prescribed standards.

This indirect municipal control results in milk standards which are in no sense uniform. One municipality may require dairy conditions which are entirely satisfactory. The majority place little or no restriction upon the dairymen. The exceptional community may exact conditions which, while desirable, may be in no sense practicable. In any event, the control is not complete. The municipality may establish standards only for the dairies which sell milk within its boundaries. The dairy lying at the outskirts of an Illinois city, but not desiring to sell milk within it, is subject to little or no control.

WITHIN RECENT YEARS the means of transportation for milk in Illinois have greatly increased. Steam railways have increased the number of their trains and interurban electric lines have placed many communities within hourly communication with each other. This has made far-away markets far more accessible and the reachable distance has been increased by the fact that the conveniently arranged trains which carry milk from the farms also bring ice to them. Cheap ice and good shipping facilities enormously widen the dairymen's market.

An additional factor which has played a part in the milk supply problem of Illinois has been the fact that the demand has been gen-

erally excessive. Almost every year there has come a time in the average community when milk is scarce and the representatives of the distributing dairymen have been compelled to scour the country for milk supplies and even to have offered inducements to farmers to purchase dairy cows.

THIS ENTIRE SITUATION has had the effect of tying the hands of the municipalities or, at least, of limiting their power to demand a really high grade of milk. If Cahokia passes rigid ordinances, requiring clean and well-conducted dairies as the source of its milk supply, the dairymen living about Cahokia will consider whether it is cheaper to meet the requirements of Cahokia or to ship to other and less particular communities. If the standards of the new Cahokia ordinances have been very high, the municipality will soon find itself confronted by a milk famine, while the thousands of gallons once used by her people will be diverted to other cities.

THIS SITUATION was particularly noticeable in the northern part of the State as the city of Chicago made her milk requirements more and more drastic. The dairies rejected by the Chicago Health Department, instead of bringing their milk up to standard, were found, in many instances, to have simply sought new markets in communities in which the health authorities were less particular.

IT BECAME APPARENT that a great need existed for supervision of dairies lying without the corporate limits of cities and villages, if the milk supply of Illinois was to be anything like uniformly good, or if the people of thoughtless and indifferent municipalities were to be protected from the dairy products which had been declared unfit for sale in better regulated cities.

IT HAD BEEN THE EXPERIENCE of the United States Government in dealing with milk production that mandatory statutes were not as effective as education—that the worse dairy methods were wasteful dairy methods and that the farmer and dairyman could be made to see that cleanliness and food milk production will result in added business and added profit. A milk inspection service which aims to benefit the producer as well as the consumer is not only practicable; but is a very logical thing.

With appropriations made available by the Forty-ninth General Assembly, the Illinois State Board of Health has been able to establish, in a relatively small way, a system of dairy inspection devoted especially to dairies over which municipalities have little or no control and the record of that inspection service warrants its expansion on broad lines.

THE FRIENDLY AND HELPFUL ATTITUDE of that service is indicated in a circular soon to be issued to milk producers and milk consumers, the text of which is as follows:

DAIRY INSPECTION.

A Circular for the Guidance of Dairymen and Milk Dealers, with Suggestions to Consumers.

ITS OBJECT.

THE PRIMARY OBJECT OF DAIRY INSPECTION is to give to the public a cleaner, safer and better milk supply and to educate the producer to better methods of milk production and milk handling.

An efficient system of inspection not only protects the consumer but safeguards the interest of the producer.

Dairy inspection has become necessary because we have found by experience that the methods of milk production are generally unsatisfactory and because the public has awakened to the dangers from the use of dirty milk. When the public is assured that milk is produced by clean methods and under sanitary surroundings there will be more milk consumed and a better price obtained.

The dairy inspector is the "man between" who carries information about the market to the producer and reports of the dairies to the consumer. He is not looking for an opportunity to invoke the penalty of the law but comes as an instructor.

Best results can be obtained in improving the general quality of the milk produced by a mutual understanding between the producer and the inspector as to the object and benefits of dairy inspection.

CLEAN MILK.

EVERY PRODUCER OF MILK should realize that he is a public servant, and that he is liable to be a public menace and should, consequently, sell nothing but a clean, safe product.

All persons who handle milk should appreciate the fact that they have in their care a product which is easily contaminated and should therefore take all precautions to prevent the milk from being a source of danger to themselves and others.

Clean milk is milk obtained from clean, healthy, well-kept cows and contains only a small number of bacteria or germs; none of which are of a disease-producing nature.

The number of germs in milk can be controlled by cleanliness and cold.

A large number of germs in milk indicate either that it is not fresh; that it has been obtained from diseased cows; that it has not

been properly handled; that dirty utensils have been used, or, that it has not been properly cooled.

The essential requirements for the production of a sanitary milk are "cleanliness and cold". This means cleanliness on the part of the milker, the barns, the cows, utensils and the immediate cooling and storage of the milk at a low temperature.

Disease-producing germs may get into the milk from cows having tuberculosis, diseased udders or from people who handle the milk and milk utensils who are afflicted with some communicable disease or have been in direct contact with some person afflicted with such a disease. Disease germs may also be introduced through the water with which the cans or utensils are washed.

CARE OF THE COWS.

ONE OF THE FIRST ESSENTIALS for the production of safe milk is healthy cows. If cows are diseased the milk is apt to contain the disease-producing germs.

Every dairyman should have his herd examined by a competent veterinarian at least twice a year.

The best way to keep a herd in good health is to keep the cows clean by currying, brushing and washing them; by keeping them in well ventilated, well lighted and properly cared for barns.

An abundant supply of clean, fresh water should be available at all times and the cows fed on good wholesome food.

Milk from cows 15 days before calving or during 6 days after calving should not be used.

As the external condition of the cows is a very important factor in the production of clean milk it is essential that extra care be taken in keeping the cows free from dirt and manure.

The clipping of long hairs from the udders, flanks, and bellies of the cows will prevent the accumulation of dust, dirt and manure. On the score card the cows are given a perfect scoring as to cleanliness only when these precautions are taken

After grooming and before milking, the udders, flanks and bellies of the cows should be washed in clean water and wiped dry with a clean cloth. The udders may appear clean but still be covered with germs; these germs having gotten on the udders by the cows lying down in the field or on the stable floor. A perfect score can not be given where these precautions are not taken.

UTENSILS.

ALL UTENSILS should be of tin, so constructed as to be smooth to facilitate cleaning and free from rust. Broken and battered utensils should never be used.

The small top pail is an absolute necessity on every dairy farm as such a pail presents only a small opening into which dust and dirt may fall from the air or from the body of the cow.

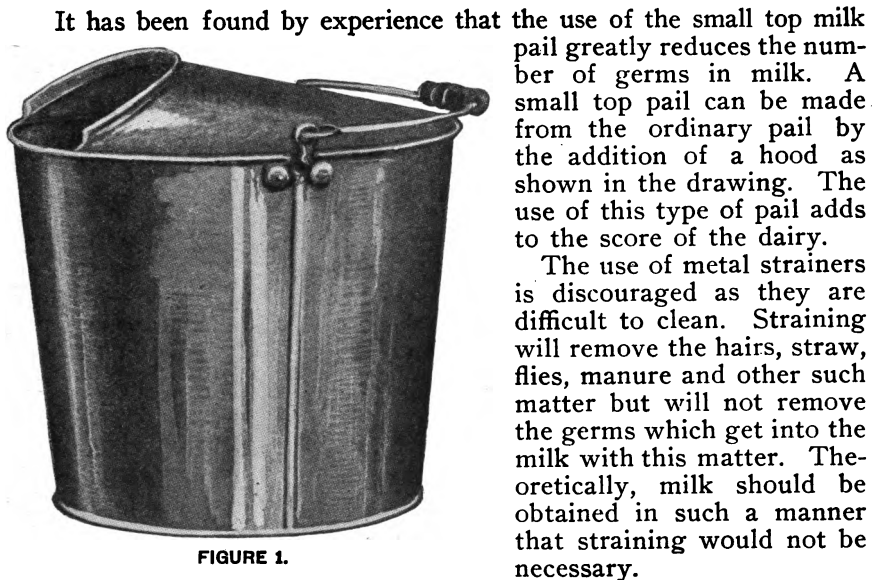


FIGURE 1.

It has been found by experience that the use of the small top milk pail greatly reduces the number of germs in milk. A small top pail can be made from the ordinary pail by the addition of a hood as shown in the drawing. The use of this type of pail adds to the score of the dairy.

The use of metal strainers is discouraged as they are difficult to clean. Straining will remove the hairs, straw, flies, manure and other such matter but will not remove the germs which get into the milk with this matter. Theoretically, milk should be obtained in such a manner that straining would not be necessary.

A milk cooler should be provided in every milk room as well as facilities for an abundance of hot water or steam.

All utensils should be rinsed in clean water and finally boiled or steamed for 20 minutes. They should then be placed in a clean place, protected from flies and other vermin and allowed to dry until used.

No part of the dairy work is more important than the cleaning of utensils, or is so often neglected. Nothing short of live steam or boiling water will insure clean utensils.

Milking should be done in clean suits used only for that purpose and kept in a clean place when not in use.

Bottle caps should always be kept under cover to prevent the accumulation of dust and dirt and other contamination.

MILKHOUSE.

EVERY DAIRY FARM should be provided with a milkhouse or milkroom, the principal purpose of which is to provide a place where dairy products may be handled and all utensils washed and cared for.

The most satisfactory type of milkhouse is one which is divided into two rooms or more in order that the washing of utensils and the handling of milk may be separated.

The milkhouse should not be located near a pigpen, manure pile or anything that might provide a breeding place for flies or other vermin. It should be well lighted, ventilated and drained. Screening is an absolute necessity.

The floor should be smooth and of concrete, sloping so as to insure good drainage and the edges rounded to prevent angles for the collec-

tion of dirt. The walls and ceiling should be smooth and tight and kept free from dirt and cobwebs.

The milkhouse should be provided with an abundant supply of pure water. Provision must also be made for supplying an abundance of hot water to clean and sterilize all utensils.

No privy, water-closet or urinal shall be located within any room used for the handling of milk or milk utensils.

Milk or milk utensils should never be handled in any of the living rooms of the house as the possibilities of spreading disease under such conditions are much greater. Some member of the family may be afflicted with a contagious disease so mild that medical attendance is considered unnecessary. A very malignant case may develop from a mild type.

COW STABLE.

THE BARN SHOULD BE DESIGNED and located with special reference to natural drainage, good light, ventilation and convenience of work.

The construction of the barn may be less important than careful methods in the handling of milk and milk utensils when the keeping down of the number of germs is considered but it has much to do in reducing the amount of labor necessary to keep the barn and its surroundings in clean condition.

The construction of the barn has also much to do with the health and comfort of the cattle, which, incidentally, should be considered by the dairyman as a safeguard against the possibility of infected milk. There is also the financial side of the question to be considered.

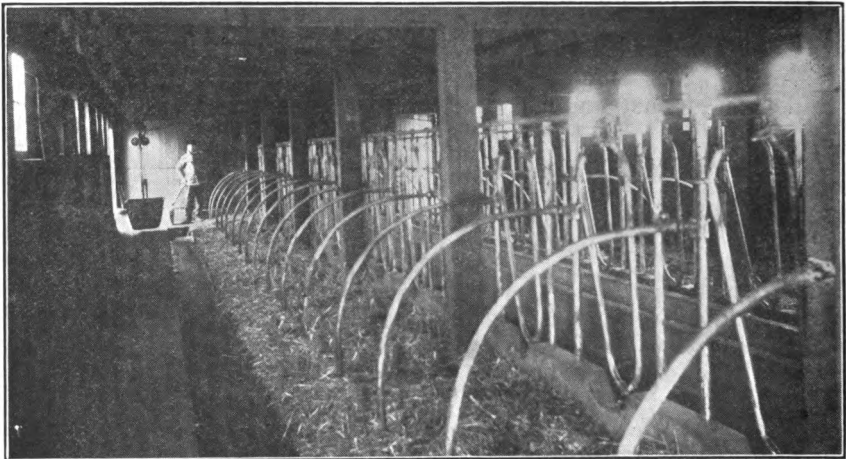


FIGURE 2.—A BARN OF GOOD CONSTRUCTION BUT NOT WHITEWASHED OR PAINTED IN LIGHT COLOR.

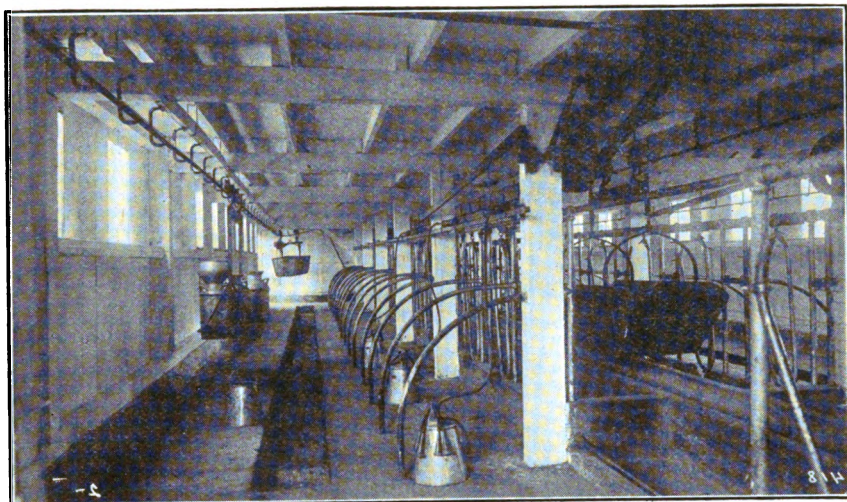


FIGURE 3.—BARN SIMILAR TO FIGURE 2; BUT FREQUENTLY WHITEWASHED. NOTE DIFFERENCE IN LIGHT.

The stable should have tight, sound floors which can be readily cleaned and which are incapable of absorbing liquids. A cement floor is easily cleaned, durable and prevents the waste of liquid manure. Complaints are frequently made that concrete floors are injurious to the cattle and are cold. Extra bedding however, overcomes these objections. If concrete stalls are not desired they may be constructed of wood, tight and sound; the gutters and the space between the gutters and the back wall constructed of concrete.

Every barn should be provided with a water-tight gutter about 16 inches wide and 8 inches deep. A gutter of these dimensions is easily cleaned. It should be inclined to insure good drainage.

Mangers are unnecessary and objectionable in that they may become infected from the discharges of diseased cows and provide a place for the accumulation of dust and dirt. A concrete trough or a smooth floor answers the purpose of a manger.

Types of stalls are best which present the least possible surface for the collection of dust and dirt and do not interfere with the circulation of air. Stalls made of metal pipe are preferable as they can be easily cleaned and disinfected if necessary. A swing stanchion is preferable as it allows the cow plenty of freedom.

The walls and ceiling of the stable should be smooth and tight and free from cross-beams, braces, ledges and anything which might harbor dust and dirt and increase the amount of labor.

The most common defect in dairy stables is the lack of cleanliness. Cobwebs on the ceilings and manure bespattered walls are too frequently found. The walls and ceiling should be whitewashed at least twice a year or painted a light color.

Light and fresh air are essentials and should be admitted in abundance. 500 cubic feet of air space or more per cow is recommended and 5 square feet of window glass per cow; provided, the windows are well distributed.

The best window is that type which is hinged at the bottom and drops inward. This type provides better circulation and prevents a direct draught on the cows.

The necessity for plenty of direct sunlight has been shown by the results of investigations. The manure from cows afflicted with tuberculosis has been found to contain tuberculosis germs and these germs may live for some time in dark and poorly ventilated quarters. If exposed to the direct rays of the sun, however, they will soon die. These germs may get into the milk through the manure and may be the cause of infection in the entire herd.

Tuberculosis is one of the most common, and from the standpoint of sanitary milk production, is one of the worst diseases of dairy cattle. The tuberculin test is the best method of detecting this disease, especially in the early stages.

BARNYARD.

THE BARNYARD should be well drained and free from manure. The manure from the stable should be removed to such a distance as to preclude the odors or filth-laden flies getting back to the milk. The proper method for the disposal of manure is to place it on a rack, spreader or other kind of wagon and remove it to the field.

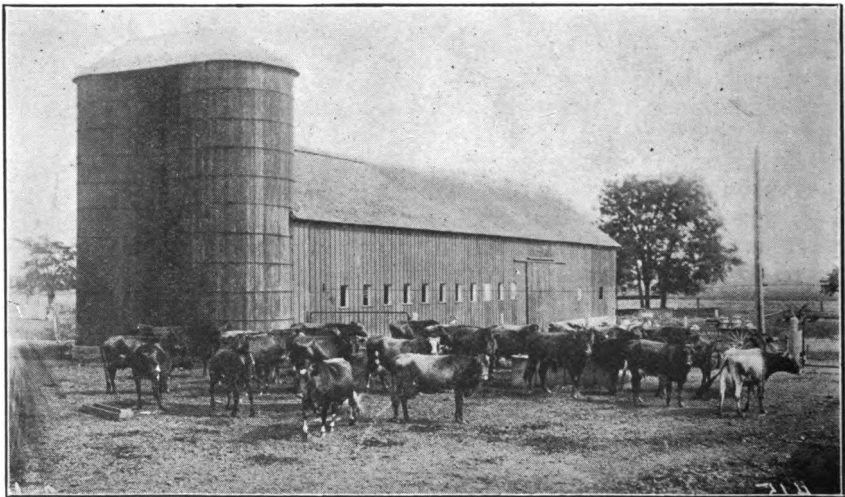


FIGURE 4.—A GOOD TYPE OF BARN AND BARNYARD.

MILKING.

UNLESS CONSIDERABLE CARE IS TAKEN a large number of germs may get into the milk during the milking process.

The cows should be groomed daily and before each milking the udders washed thoroughly and then dried with a clean cloth. The milker should be provided with clean clothing.

Immediately before milking the attendant should wash his hands thoroughly and milk with dry hands. The practice of wetting the hands with milk is a filthy habit and is condemned.

The first three or four streams from each teat, known as the "fore-milk" should be drawn into a separate vessel and discarded. This milk contains the highest number of germs.

No type of milk stool should be used which can not be easily cleaned. Germs may get into the milk by the milker handling a dirty stool which is soiled with manure. The milking stool should be cleaned and hung up after milking.

The milk should be removed from the barn as soon as drawn from the cow and immediately cooled. If milk is sold in bottles at retail it should be bottled at once and kept at a low temperature.

COOLING.

AS SOON AS THE MILK reaches the milkhouse it should be cooled by running it over a thin surface kept cool by ice or cold water or by placing the cans in a tank containing ice or cold water. If the latter method is used the milk should be stirred.

Cooling retards the growth of germs. The number of germs in milk depend upon the amount of contamination; the number of germs in the udder and the rapidity with which they multiply. The rate of growth depends on the temperature at which the milk is held.

The following chart shows the rapidity with which germs multiply at different temperatures.

RELATIVE GROWTH OF BACTERIA WHEN HELD AT DIFFERENT TEMPERATURES.

Temperature of milk.	Number per cubic centimeter at beginning.	Number at end of 6 hours.	Number at end of 12 hours.	Number at end of 24 hours.	Number at end of 40 hours.
° F.					
50.....	10	12	15	41	62
68.....	10	17	242	61,280	3,574,960

U. S. Department of Agriculture Bulletin No. 602.

DELIVERY AND TRANSPORTATION.

IF MILK IS RETAILED it should be put up in bottles, closed with paraffin caps. The milk should be kept cold by placing cracked ice into the boxes used for holding the bottles.

Under no circumstances should milk be dipped from cans into uncovered vessels.

The delivery wagon should be kept clean and should be covered.

Milk bottles must not be removed from homes where there is a contagious disease. It should be emptied from the bottle into a vessel provided for that purpose.

When milk is hauled to town to a dealer or to the train, the cans should be protected from the heat of the sun by a heavy canvas or a cooling jacket.

Milk produced under the best of conditions and properly cared for at the dairy may be spoiled in a few hours by permitting it to become warm.

WATER SUPPLY.

THE WATER SUPPLY for the cattle should be fresh, uncontaminated and convenient. The supply should be abundant.

To keep water pure it is necessary to protect it from contamination. Water which comes from shallow wells receiving surface drainage or seepage from the barnyard, manure pile or privy is dangerous.

The top of the well should be tightly covered, preferably with concrete. It should be so constructed so as to prevent seepage.

The "old oaken bucket" type of well can not be considered safe.

DISEASES SPREAD THROUGH MILK.

THE DISEASES KNOWN TO BE SPREAD through milk are tuberculosis, typhoid fever, scarlet fever, diphtheria, sore throat, foot and mouth disease and occasionally others. This list does not include the dysenteries and gastro-intestinal diseases of children.

Bovine tuberculosis and foot and mouth disease come from the cow. Cows do not have typhoid fever, scarlet fever or diphtheria. These diseases are spread by human beings.

Bovine tuberculosis germs may get into the milk in one of the three ways:

1. Directly; from a cow with tuberculosis of the udder.
2. Indirectly; from cows having tuberculosis of the lungs. The germs are coughed up into the mouth, swallowed by the cow, passed into the feces and thus indirectly get into the milk.
3. The milk from healthy cows may contain tuberculosis germs by admixture with other milk obtained from cows having tuberculosis.

A person having tuberculosis may contaminate milk by coughing, sneezing or through infected hands.

TYPHOID FEVER.

TYPHOID FEVER is frequently spread through milk. Many epidemics of typhoid have been attributed through an infected milk supply.

Typhoid fever is caused by a germ which comes from the human body. The germs are found in the discharges of the intestines and kidneys.

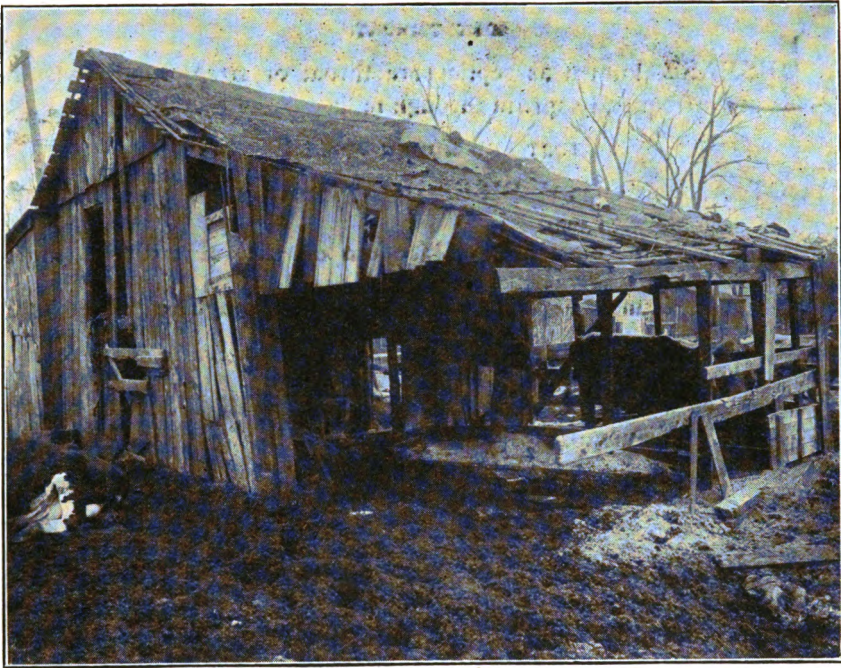


FIGURE 5.—THE WRONG KIND, BUT VERY COMMON KIND OF COW BARN.

In order to "catch" typhoid fever we must swallow some of the germs.

If human filth is prevented from reaching the human body typhoid fever will be prevented.

That the germs may not get back into the body we must properly dispose of the waste material from the intestines and kidneys. This can be done by the use of a flyproof water-tight privy or a sanitary closet.

Flies which have access to privies may carry the germs to the milk or other foods. Privies which are not water tight may contaminate the water supply.

Fingers or flies soiled with infected excreta may introduce in a vat or can of milk the seed of infection for an extensive typhoid epidemic.

DIPHTHERIA—SCARLET FEVER.

DIPHTHERIA AND SCARLET FEVER germs may gain entrance to the milk from the excretions of the nose and throat of persons having the disease.

Persons who come in contact with diphtheria patients are very apt to have the germs in their throat and be capable of spreading the disease, although not sick themselves.

SORE THROAT.

A DISEASE known as septic sore throat or *streptococcus tonsillitis* is not infrequently spread through milk.

FOOT AND MOUTH DISEASE.

FOOT AND MOUTH DISEASE is primarily a disease of cattle and secondary to man.

It is one of the most highly infectious diseases of cattle and other animals.

The disease may be transmitted to man through milk and milk products.

NECESSITY FOR STERILIZING DAIRY UTENSILS.

FOR THE PRODUCTION OF GOOD CLEAN MILK and dairy products in general, cleanliness of utensils is highly essential. The methods adopted on most farms for the cleaning of utensils are not satisfactory as the temperature of the water used is usually not high enough to kill all the germs.

When utensils are sterilized by steam all bacteria and disease germs which may be upon them are destroyed. Milk and cream placed in unclean vessels will sour quickly while if kept in sterilized containers will keep much longer. Sterilization is the solution of this problem.

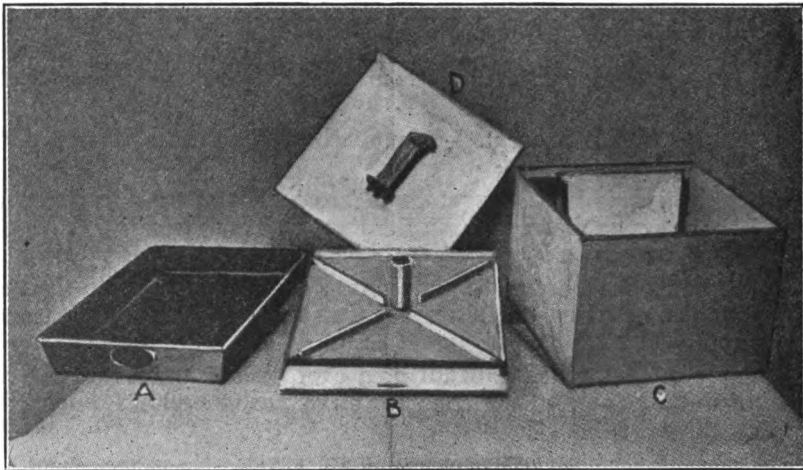


FIGURE 6.

A sterilizer as described below and recommended by the United States Department of Agriculture can be obtained from any tinner at a cost from \$5.00 to \$8.00. The additional keeping quality which sterilization of utensils will give milk and cream will pay for the sterilizer in a short time.

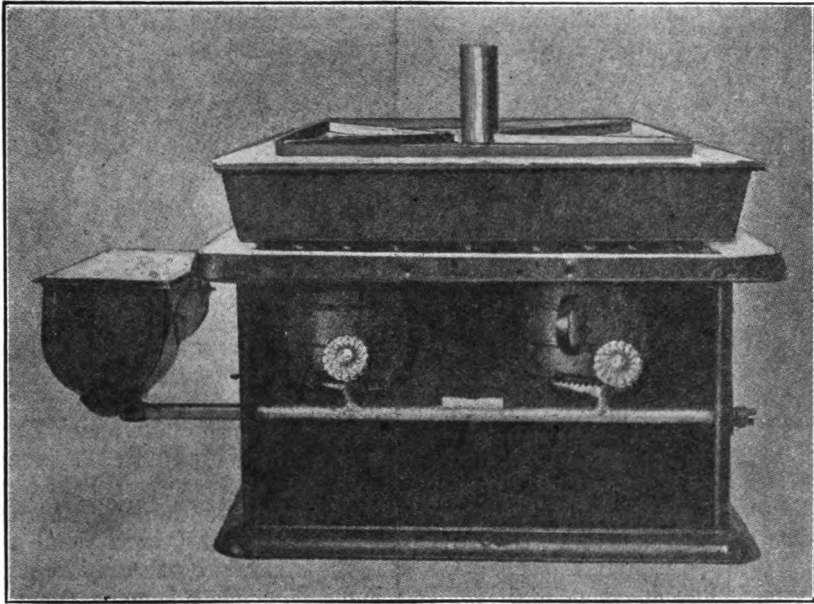


FIGURE 7.

The sterilizer consists of the parts shown in Figure 6. First is a roasting pan (a) about 20 inches long, and 14 inches wide; top measurements, and 3 inches deep. The cover is in three parts; the lower part, fitting closely over the pan, is covered with asbestos, upon which is placed the upper part, the latter being the same width as the pan but 3 inches shorter at each end. It is made as follows: Take a sheet of heavy galvanized iron and cut it large enough to cover the top of the roasting pan, allowing a little to overlap the edge. Solder flanges beneath this cover so that they will meet the edge of the pan, thus making a tight cover. Then cut a hole in the center of the cover $1\frac{1}{2}$ inches in diameter and solder on a round, galvanized iron pipe $4\frac{1}{2}$ inches in height and $1\frac{1}{2}$ inches in diameter. The cover should then be insulated by covering with a piece of asbestos board five-sixteenths of an inch thick; a hole should be cut in the center of the piece to allow the steam outlet pipe to pass through. Then for the upper part make a shallow pan of galvanized iron 14 inches square with sides five-eighths of an inch high; cut a hole $1\frac{1}{2}$ inches in diameter and fit the pan on top of the asbestos, allowing the steam outlet pipe to extend through the center hole. When the pan is pressed down closely to the asbestos, solder it to the steam outlet pipe which passes through it. On the pan four strips of stiff galvanized iron three-eighths of an inch wide are soldered. These should extend three-eighths of an inch above the bottom of the pan, as shown in Figure 6, and should run from a distance of 1 inch from the corners to 1 inch from the steam outlet

pipe in the center. A section through the cover (b) is shown in Figure 7. Thick paper may be used in place of asbestos.

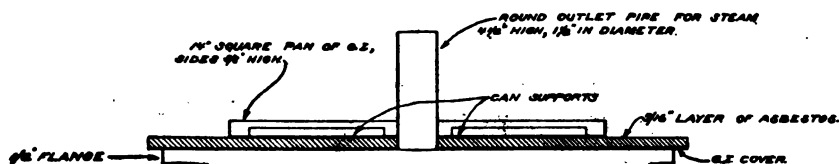


FIGURE 7—SECTION THROUGH COVER OF ROASTING PAN.

The rest of the sterilizer, seen in Figure 6 consists of a galvanized iron box (c) with a removable cover (d) which has a handle on the top. This box has no bottom, the 14-inch shallow pan on the asbestos over the cover of the roasting pan forming the base of the box. The sides should be made separate and should be 11 inches high. These sides should fit tightly into the shallow pan just mentioned. On one side of the box at the top a wire should be attached three-fourths of an inch from the top and one-half inch from the side. This is shown in Figure 6, where the strainer cloth may be seen hanging. The cover of the box (d) should be made large enough to extend over the sides and fit closely.

For heat a 2-burner wickless kerosene stove can be used. The flame should, however, be close to the bottom of the pan. Any kind of a stove, however, can be used. The steam should reach the temperature of 211° F. A thermometer should be used for determining the temperature. When the steam has reached this temperature the utensils should be placed over the steam outlet pipe and allowed to remain for at least five minutes. Shake out any water that may have remained and allow to dry. After the utensils are sterilized they should be placed in free from dust and dirt and should not be touched until milk is placed in them. Pails after steaming and drying should be placed upright in a clean, dry, covered box where they should remain until milking time.

The sterilizer parts should be dried after using to prevent rusting.

TO THE CONSUMER.

IT IS UNDOUBTEDLY TRUE that the dairyman has been blamed for many things for which he is not directly responsible. He has enough difficulty without adding to his burden. The consumer must realize that he has his role to play in the pure milk problem and must assume some of the responsibility.

The producer has done his part when he leaves at the consumer's door a bottle of clean, cold, unadulterated milk. If improperly handled in the household it will spoil quickly and become unfit for food, especially for babies. This improper handling consist; (1) in placing it in unclean vessels; (2) in unnecessarily exposing it to the

air; (3) by failing to keep it cold up to the time of using; (4) exposing it to flies.

Milk absorbs odors very rapidly and collects bacteria or germs when exposed to the air or placed in dirty vessels. Some of these germs may be of disease producing nature; others may cause digestive disturbances in babies.

A GREAT DEAL OF THE SUMMER DIARRHEA of infants is due to impure milk. Many times this condition is attributed to teething while, as a matter of fact, it is an affliction due to infected food.

Milk should be delivered to the consumer in capped bottles at a temperature of 50° F. or less.

If left on the porch it collects dust and dirt, attracts flies and increases in temperature. Dogs and cats may have access to it.

Where the milk is delivered early in the morning a box should be provided into which the milk bottles may be placed.

The milk should be taken into the house as soon as possible and placed in a cool place, preferably in an ice box. The colder it is kept the longer it will remain sweet.

Germs are the cause of the changes which take place in milk. If kept cold the germs increase in number very slowly.

Milk should be kept in the original bottle until needed.

The bottle should be cleaned before pouring out the milk.

The cap should be removed by a clean fork or some other sharp instrument. Pushing the cap in with the finger is liable to contaminate the milk.

Never touch the lips to the bottle.

After the cap has been removed the bottle should be covered with a tumbler.

Keep the refrigerator clean and sweet. It should be scalded frequently.

AS SOON AS A MILK BOTTLE IS EMPTIED, rinse it in lukewarm water until it appears clean. Use fresh, clean water. Do not use dishwater that has been used for washing other utensils. They can then be washed in hot water and allowed to drain.

When the bottles have been properly cared for they should be placed in a convenient place where the dairyman can get them without any delay. Time is money to him.

Milk bottles should be used for no other purpose than that of retaining milk.

Bottles must never be taken into a sick room as they may become infected and may not only carry infection to other members of the family but to other families.

The use of metal or cardboard tickets is discouraged. Children frequently place them in their mouths and infection may be the result. Coupon tickets should be used and used but once.

Milk bottles must not be removed from a home where there is a contagious disease until after the expiration of quarantine and the bottles have been disinfected.

Visit your dairyman's place of business and see for yourself how it is conducted.

It is cheaper in the long run to pay a little more for milk that is produced under proper conditions, for dirty milk is expensive at any price.

PASTEURIZATION.

EFFICIENT PASTEURIZATION destroys disease germs in milk but it should not be regarded as an insurance against the future contamination of the milk. The same care should be taken of it as ordinary milk.

HOW TO PASTEURIZE MILK IN THE HOME. In a pail of about 8 inches in diameter and 6 or 7 inches in height, place a saucer. On the saucer place the bottle of milk, leaving the paper cap on the bottle but perforating it with a clean fork. Add enough lukewarm water to the pail to bring the top level of the water nearly to the level of the milk. Place the pail and contents on the stove and heat until bubbles begin to rise around the bottle. Remove the pail from the stove and allow it to stand for 30 minutes. The pail should be covered. The bottles should then be removed and cooled at once and kept at a low temperature until used. All pasteurized milk more than 24 hours should be thrown away.

RULES AND REGULATIONS GOVERNING THE MANAGEMENT OF DAIRIES AND THE PRODUCTION AND SALE OF MILK AND CREAM.

COWS.

No milk or cream shall be sold from diseased cows. Remove all suspected cows from the herd.

Every person keeping cows for the production of milk or cream for sale must clean the cows daily and provide them with proper food and clean, fresh water.

Keep the hairs short in the region of the udder.

Clean the udders and surrounding parts before each milking.

STABLES.

They shall be used for no other purpose than for the keeping or milking of cows. A tight partition separating the cows from other animals may be satisfactory.

The floors shall be smooth, tight, sound and properly drained.

The walls and ceiling must be tight.

The gutters shall be water tight. Concrete is best.

Provide 5 square feet of window light for each cow and at least 500 cubic feet of air space.

Windows should be hinged at the bottom and open inward so as to allow proper ventilation and prevent draughts.

CLEANLINESS.

The floors, walls, ceilings and windows shall be kept clean at all times.
Whitewash the interior the barn at least twice a year.
Remove manure and other waste from the stable daily.
The cowyard must be well drained and kept clean.

UTENSILS.

Milk utensils must be used for no other purpose than for the handling, storing or delivery of milk.

Rusty, battered or dirty utensils must not be used.

All utensils must be thoroughly cleaned and sterilized and inverted in pure air.

Utensils must be protected from flies and other contamination.

A small top milk pail should be used.

MILKHOUSE.

Dairy regulations require a milkhouse or separate room for the handling of milk and washing of utensils.

The floor should be of concrete and well drained.

The walls and ceiling must be smooth.

The milkhouse must be well lighted, ventilated, screened and kept clean at all times.

Provision must be made for hot water or steam for the cleaning of utensils and facilities for the rapid cooling and storage of milk.

Clean towels must be supplied and provision made for the washing of the hands.

MILKING.

Attendants must milk with clean, dry hands and be provided with clean clothing.

Clean the udders thoroughly before each milking.

Use a clean milking stool and hang up when not in use.

Remove milk from the stable immediately after being drawn from the cow and cool at once to 50° F. or below.

WATER SUPPLY.

The water supply shall be abundant, fresh and uncontaminated.

CLOSETS.

Every dairy shall be provided with a sanitary watercloset or privy.

The privy must be flyproof and water tight.

The contents of the privy must be properly disposed of so as to prevent the possibility of infection.

ATTENDANTS.

Persons suffering from consumption or any other communicable disease are not permitted to handle milk or milk utensils.

The milkers must be clean in person.

CONTAGIOUS DISEASES.

The law requires the reporting of every case of contagious or communicable disease.

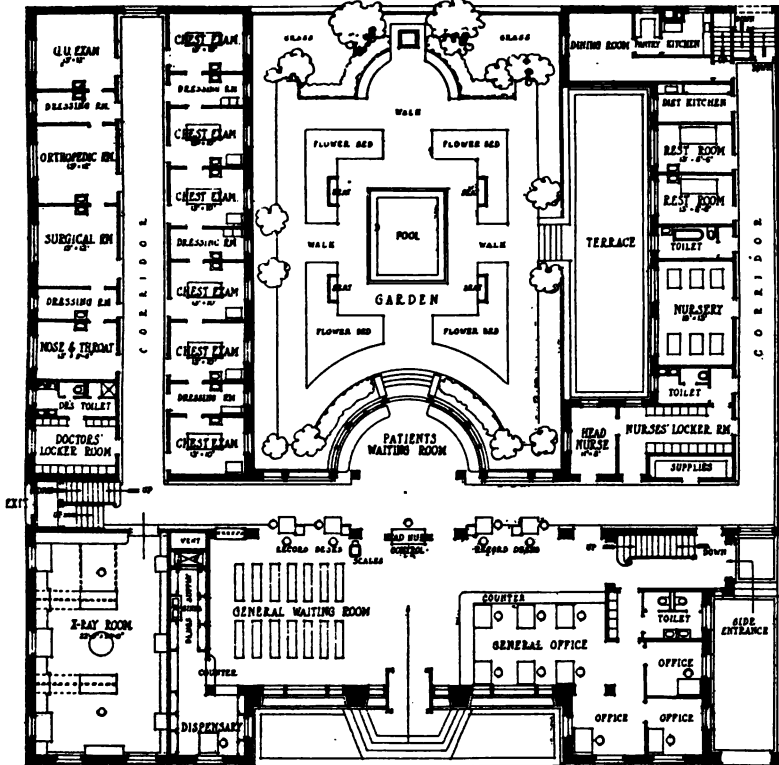
No milk shall be sold from a dairy in which there is a contagious disease except according to the rules of the State Board of Health.

Milk bottles must not be removed from a home where there is a communicable disease until after quarantine is raised and the bottles properly disinfected.

Most municipalities have thin hides and short memories. They are greatly shocked by deaths from communicable disease; but they fall back at once into dangerous habits after the epidemic is over.

NEW TUBERCULOSIS DISPENSARIES FOR CHICAGO.

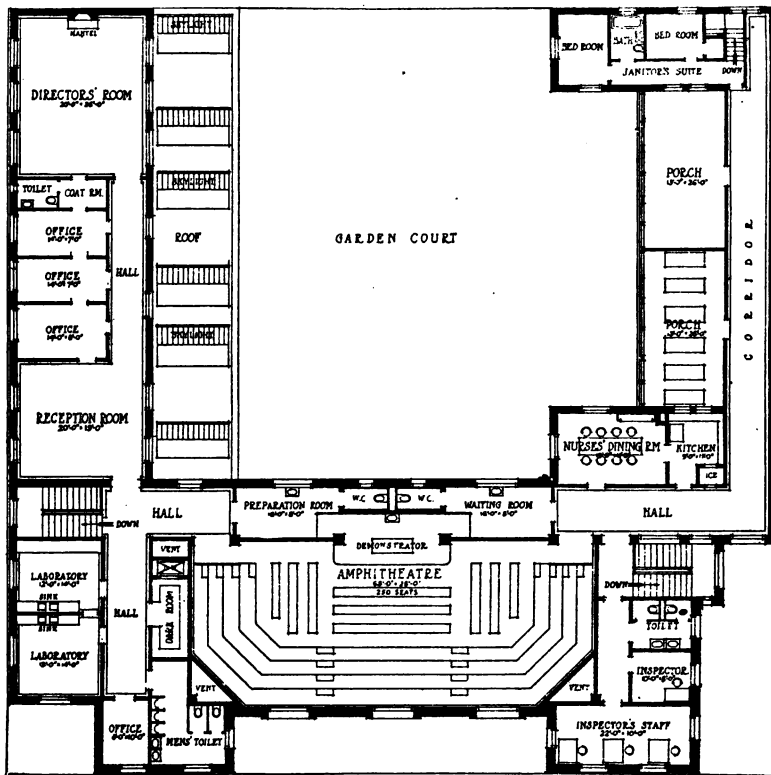
WHAT PROMISE TO BE the most complete and elaborate tuberculosis dispensary buildings in the United States are those planned by the dispensary department of the Municipal Tuberculosis Sanitarium for the city of Chicago. There will be three of these large dispensaries to be owned by the city while other dispensaries will be leased for 5- and 10-year periods from property owners who are willing to erect buildings suitable for dispensary purposes.



GROUND FLOOR PLAN.

These new dispensaries will take the place of the eight which are now in operation and which are housed, for the most part, according to the directors, in "poorly ventilated old buildings, a menace to the health of the patients, physicians and nurses, and on noisy streets where it is difficult to make proper examinations."

The three dispensaries which will occupy the buildings erected by the city will be central diagnostic stations to which patients may be sent from the other five dispensaries for X-ray and other special diagnostic procedure. In these central dispensaries a general staff will



SECOND FLOOR PLAN.

be maintained for the purpose of obtaining complete and accurate diagnoses. The building contains rooms for genito-urinary work, surgery, orthopedics and nose and throat in addition to several rooms for chest and general physical examination.

The buildings also contain rooms for children who are under observation and quarters for those who are suffering with hemorrhage or for those who are especially sick while waiting for examination.

The floor plans indicate elaborate buildings which may be expensive; but which will be attractive in appearance and well adapted to dispensary purposes.

Which is worth the more, a house or a human life? What would your fire marshal be worth to you without fire apparatus? What do you pay your health officer? What do you pay your fire marshal? How much do you allow your fire marshal for his equipment? How much do you permit your health officer to spend for laboratory equipment? We will publish every answer we receive from any Illinois city to these questions and we will print the answers in bold-faced type.

It would be very uncomfortable for every mayor and every member of a city council if all the people who had died because good health ordinances were not passed would haunt them every night. Gosh! How glad some of us ought to be that there ain't no ghosts!

If every public official having to do with the public health could be held criminally accountable for every death from communicable diseases, how many deaths would occur? How many officials would resign from office? How many candidates would decide not to run? Yet a very competent health authority has said that, if we employed the knowledge we now have, communicable diseases could be practically overcome in another generation.

Some deaths from communicable diseases have been so plainly due to lack of regard for others that there should be an indictment for at least manslaughter. Yet these deaths have been accepted with such wonderful good humor by those who might have prevented them that they appear to be rewarded by man's-laughter. Do you get me?

You believe in fresh air? Were all of your windows open as far as they would open every night this winter? If not, why not?

We smugly assume that all of the people of the United States are becoming a sane and sanitary people. Have you any reason to assume that other people are following better methods of living than you are yourself?

Never advise for another healthful man anything that is not important enough for you to do yourself.

Sanitary living doesn't begin with this kind of an "\$."

If you pay your health officer \$25.00 a month, what do you expect? A man worth \$300 doing the best he can or a real man worth \$6,000 a year giving one-twentieth of his time and thought and his attention to the lives and health of the people of your town? A \$300-a-year MAN receives less pay and will probably give less service than a cab-driver. One-twentieth of a man's brain and service for a municipality's health is not worth what you pay for it. What is the answer?

When vaccination is practically without danger and is an absolute preventive of one of the most contagious and one of the most loathsome of diseases, how much sympathy is the victim of smallpox entitled to?

Lots of men would go to jail for having contagious diseases if it were not for the fact that there is no law in Illinois which prohibits a citizen being a fool.

If people would live the personal and community lives that make for health, we could give up all this tremendously expensive fight against disease.

THE AFTER TREATMENT OF INFANTILE PARALYSIS.

OUR STATE found itself during the past year in the path of the epidemic of infantile paralysis which has been a serious disease factor in portions of the nation since 1907. In the best light we had we met its epidemiological aspects, but our interest and duty do not end here.

Very considerable advances were made during the summer by those studying the bacteriology and clinical course of the acute stage. Even greater advances have been made up to date in the after treatment.

IT IS THE EARNEST WISH of the Illinois State Board of Health to reach every physician and every family, especially those families where the disease has appeared, with a strong word of hope. Little could be said as to anything but symptomatic treatment during the acute stage. But we can face the problem of the after care with positive assurance. The treatment has been practically standardized, just as the treatment of refractive errors and of appendicitis have been standardized. So true is this that we can positively say that practically no case properly treated will be hopelessly crippled. Practically every case may recover enough function for locomotion. And fairly complete functional recovery occurs very often even among a class of cases which formerly were left quite helpless. Details of treatment cannot be given here, but the principles are as follows:

1. The prevention of deformity. This is done with very simple apparatus. During the acute stage the bed clothes should be prevented from accentuating a deformity, such for example as the frequently occurring one of foot drop. Muscular neutrality can be maintained at this point by the use of a padded soap box or brick. Later simple plaster shells are successfully used during the hours of rest. Complete casts to be changed as indicated have a large field of usefulness. Properly fitted braces are not formidable considerations and are real aids also to regaining locomotion in selected cases.

2. Muscle training is the next in order of therapeutic measures, and not second to any in importance. The use of properly fitted braces has a place not only in preventing deformity but also in relation to muscle training, securing equilibrium while certain muscular effort is made.

BUT THE UNDERLYING PRINCIPLE on which muscle training is based is the education of the cerebrum to send impulses to the affected muscles by new paths. We should keep in mind the fact that the lessened or abolished muscular function is dependent upon lesions in the spinal cord, and is secondary to such lesions. If unused tracts can be called into use both trophic and motor functions, in other words innervation, will be resupplied to the muscles. Muscular atrophy will be prevented and function will be restored.

From these considerations it is seen how subsidiary and relatively minor are all massage and electrical therapeutic attempts. They may do good. They can do great harm. In no case are they sufficient in themselves.

AT THE RISK OF REPETITION we call the attention of the profession to "the way out"—indeed the Royal Way—in the recovery from the effects of acute poliomyelitis. To get down to pathological and physiological fundamentals in this case is not the way of therapeutic nihilism. It is the way to success and the physical salvation of our patients.

That muscle training takes time is no limitation of its genuineness and value. It takes time for the normal, unhindered production of growth and function. The individual is first babe, then child, then youth, then man. Are there therapeutics which will change this order or eliminate a single stage in it?

So a therapeutic system to circumvent the effects of acute poliomyelitis must depend upon the time element because such therapeutics are necessarily allied to growth processes in the neuromuscular system.

MUSCLE TRAINING is not a difficult system to acquire. Any physician can "pick it up" with as little trouble as he can any usual feature of surgical, pathological or diagnostic technique. It is successfully taught to nurses who in turn successfully teach it to mothers of afflicted children.

All of our people should have an intelligent outlook upon the matter of muscle reeducation. It is not a fad nor a trick nor a technical system for the manual genius, but a system as natural as are the neuromuscular functions themselves.

Neuromuscular reeducation should be begun during the first six months after the acute attack, and preferably as soon as the neuritic tenderness is past. However cases of serious disability are to be seen in which very great recovery has taken place twelve to twenty years after the acute attack. Hopelessness has no place in the prognosis of these cases.

The time limit before operative procedures are undertaken for the correction of deformity is placed at two years. If after two years of sustained and intelligent effort there is still serious deformity operation should be undertaken, which is without risk to life and with modern technique very highly successful. Even tendon transplantation is not the last word in therapeutics, for neuromuscular training may go on as long as it is needed, and with proper braces even the extreme types of paralysis are kept from complete helplessness.

THE STATE BOARD OF HEALTH is well on the way to make use of modern advances in the recovery of the victims of infantile paralysis from hopeless crippledom. In addition to the work in Chicago that in New York and Boston has been personally very carefully studied during these last months. A clinical and administrative plan is being worked out to put within the reach of every physician and every patient the means of success in the after treatment of this malady.

If before a preventive or abortive therapy of the acute stage has been worked out we shall have other visitations of infantile paralysis, as

we doubtless shall have, we shall be in a position to forestall a very large percentage of permanent crippling. Thus we shall fulfill the Board's function in preventing medicine in this as in all other phases of public health.

CLARENCE W. EAST, M. D.,
District Health Officer.

HOW TO FIGHT THE FLY.

SWAT THE FLIES where they breed, rather than where they bask. FLIES SWARM ABOUT KITCHENS, meat markets, groceries and other places where food is kept. But they don't come into being there except in undisturbed filth. So seek them where they start.

FLIES WILL BREED IN FILTH as they feed on filth, but the heap of horse manure brings forth the greater number. Kill them there.

ONE STABLE IN WHICH A HORSE IS KEPT will supply house flies for the neighborhood, unless the manure is properly cared for.

IT IS NOT DIFFICULT for a city to do away with the plague of flies. Though a fly may go a mile or more in search of food, it will not fly but a comparative short distance, except when it "flips" a wagon or some other moving vehicle. Consequently nearly all flies found in the city come to life there.

FROM EGG TO FLY is ten to twelve days. If manure is carted away once every week the egg will not have time to develop. If the manure is spread out on the ground the sun will kill the eggs and maggots.

ALL CITIES AND VILLAGES in the State of Illinois are clothed with power to abate nuisances dangerous to the public health. It is easy, therefore, for local health authorities to enact reasonable rules covering the care of stables and the keeping and disposal of manure.

FLIES BREED ALSO in human excrement or filth, thus becoming very dangerous to human beings, as they carry intestinal germs such as dysentery and typhoid.

THE BACK YARD PRIVY is not only a nuisance but a decided menace to the public health. If the open privy is not abolished by city ordinance it should be regulated.

THE GARBAGE HEAP, too, contributes to the number of flies. There will be flies as long as there is filth. No filth, no flies.

THE FLY IS A CARRIER OF TYPHOID, tuberculosis and other diseases. It is a leading agent in the spread of summer dysentery and is responsible for the death of many babies. Every means, therefore, should be taken by municipalities to rid themselves of flies.

A MUNICIPALITY SHOULD NOT CALL upon its people to kill the fly and at the same time permit manure heaps to lie in the alleys and barnyards during the fly season; provide breeding places for flies in untreated privy vaults, and allow wide-mouthed garbage boxes without covers to remain unemptied for weeks at a time.

HOW HOUSE FLIES MAY BE KILLED without serious loss of the fertilizing value of the manure in the following manner:

Apply through a sieve or flour sifter ten ounces of borax to eight bushels of fresh manure and sprinkle with water. In the same manner sprinkle two ounces of borax to a can of garbage daily. Borax should also be applied to floors and crevices in barns, stables, markets, street sweepings and such other places where flies are likely to lay their eggs. After sprinkling the borax, water should be sprinkled over the powder.

PREVENT THE FLY.

A SANITARY ORDINANCE FOR A SMALL COMMUNITY.

THE LITTLE CITY OF GREENUP, over in Cumberland County, where the United States Public Health Service and the State Board of Health have been working together in a most interesting county sanitary survey, has caught the survey spirit and has determined to enact ordinances which will make it a better town to live in and a better town to work in.

The following sanitary ordinance recently enacted will prove suggestive to others of the smaller Illinois cities which have civic conscience and sound ideals:

ORDINANCE 203 OF THE VILLAGE OF GREENUP.

AN ORDINANCE to provide for the sanitary disposal of waste matter within the Village of Greenup, Cumberland County, Illinois.

Be it ordained by the President and Board of Trustees of the Village of Greenup, Cumberland County, Illinois:

SECTION 1. It shall be unlawful for any person in the village of Greenup to throw out, deposit or bury within the village limits any excreta from human bodies, solid or liquid, or to dispose of such substances in any manner other than a properly sewered water-closet or a properly constructed sanitary privy.

SEC. 2. All buildings or other places in said village where human beings live, are employed, or congregate shall be provided with a sewered water-closet or a sanitary privy for the catchment, or receiving of human discharges which will properly dispose of and safeguard such matter.

SEC. 3. A sanitary privy is one so built, rebuilt or constructed that (a) the excreta deposited therein will not fall upon the ground but in some water-tight receptacle, and (b) the contents of which receptacle shall not be accessible to flies, fowl or small animals at any time; (c) the box parts of said privy shall be constructed of sound lumber, all joints being made tight. Said box is to be provided with a lid closely fitting and the seat thereon is to be covered with a self-falling hinged lid so as to render such box flyproof; (d) proper ventilation of such box shall be provided by means of suitably placed openings or flue. Such ventilation openings are to be screened.

SEC. 4. The contents of all privy receptacles shall be removed by the village scavenger, who shall be appointed by the president and board of trustees of the village of Greenup. It shall be his duty to visit and inspect each privy and remove in a cleanly manner the human excreta from the receptacles at least once a week. The cans in every case shall be effectively cleaned by the scavenger before replacing in the privies. The contents of said receptacles shall be properly disposed of.

SEC. 5. All sanitary privies in said village shall be kept in a cleanly condition at all time and so used that all the excreta deposited therein will fall into the receptacle provided. Such receptacle shall be used only for the purpose of a

toilet and no wash-water, water or other refuse matter other than human excreta shall be deposited therein.

SEC. 6. All receptacles for sanitary privies in Greenup shall be furnished by the village of Greenup, but the same shall remain the property of said village. It shall be unlawful for any person to take, destroy, or misplace or misuse any of such receptacles.

SEC. 7. The measures necessary to provide a sanitary method of disposal of human excreta on each premises shall be met by the owner of said premises in each and every case.

SEC. 8. A fee of \$1 per quarter, payable in advance, at the office of the village clerk, shall be charged the occupant of each premises provided with a sanitary privy, for the maintenance of a scavenger system; provided, however, that a deduction of 25 cents shall be made from the above charges if the same are paid within the first ten days of each quarter. In case of failure of occupant to pay this fee the owner of the premises shall be held liable.

SEC. 9. Any person or persons violating any of the provisions of this ordinance, shall upon conviction, be subject to a fine of not less than \$5 or more than \$15 for each count.

SEC. 10. All ordinances or parts of ordinances conflicting with the provisions of this ordinance are hereby repealed.

SEC. 11. This ordinance shall become effective within thirty days from publication of same which shall be made in the first issue of the local newspaper following the passage of this ordinance.

RESULTS OF THE COUNTY TUBERCULOSIS SANATORIUM ELECTION.

AT THE NOVEMBER ELECTION this year, ten counties voted on the County Tuberculosis Sanatorium proposition and in eight of these counties it was decided by substantial majorities to erect public sanatoria and to establish their affiliated free dispensaries and visiting nurse service.

The counties in which the proposition was carried are Adams, Champaign, Kane, LaSalle, Livingston, Morgan, McLean and Ogle. In Greene and Rock Island counties the proposition lost.

The County Tuberculosis Sanatorium Law provides that the proposition must have a majority of votes cast on the proposition—not all of the votes cast at the election as is the case under the provision of some State laws. It is interesting to note, however, that, with the relatively small amount of education and agitation, the number of people sufficiently interested to vote on the measure was relatively very large. In the eight counties in which the proposition carried the total number of votes cast for president was 192,979, while the total number of votes cast on the sanatorium proposition was 137,972. Of the number of votes cast on the proposition 91,378 were favorable and 46,594 votes against it, or a majority for the sanatorium in these eight counties of 44,784.

The largest majority in favor of the sanatorium was 11,038 votes in Kane County out of a total of 29,422 votes cast. Unfortunately, through a technical error in the preparation of the ballots, the Attorney General has ruled that the election in Kane County is void. The smallest majority in favor of the sanatorium was in Ogle County where the measure carried by 814 votes out of 9,382 cast.

The majorities for the proposition in the various counties were: Adams, 6,381; Champaign, 6,079; Kane, 11,038; LaSalle, 9,501; Livingston, 3,538; Morgan, 5,036; McLean, 1,947; Ogle, 814.

In the two counties in which the sanatorium measure was defeated the majority vote against the proposition in Greene County was 728, while in Rock Island County, it was 12,039. The heavy majority against the county sanatorium in Rock Island County may be attributed to the fact that the city of Rock Island had already voted on the municipal tuberculosis sanatorium measure and had but recently opened a small municipal sanatorium, while the failure to pass the measure in Greene County may be ascribed to the absence of an active campaign before election.

It is interesting to note that, as a rule, the women's vote is much stronger than the men's in support of the proposition. This is usually true in matters submitted for referendum having to do with charities, philanthropies and community betterment. In Ogle County the women are entitled to the credit for having passed the sanatorium measure, inasmuch as the men's vote was 54 against it while the women's vote was 868 in favor.

IT IS STATED by those who are in position to know that at least 20 Illinois counties will vote on the county sanatorium proposition at the election in 1918, and it will be encouraging to them to know that of the ten counties voting on the proposition this year, including the two counties in which the proposition was defeated and in one of them overwhelmingly defeated on account of local conditions, the majority in favor of the county sanatorium was 32,020 out of 229,612 votes cast or a majority of about 14 per cent of the total vote.

FILCHED WITHOUT CREDIT.

Items of Interest to the Public Health Picked Up In Current Medical Literature.

It need hardly be said that no such prevalence of infantile paralysis has ever been recorded as that of 1916, and that the statement occasionally heard that there has not been much more poliomyelitis than usual this year and that it is really a newspaper sensation is wholly misleading. It is obvious that these thousands of paralyzed children constitute a humanitarian and economic problem of no mean dimensions—a problem which must be defined a little before we proceed farther.

* * *

During the past summer there were reported to the health authorities in the United States no less than 27,000 cases of poliomyelitis. About one-half of these occurred in the state of New York. The other states in which the epidemic was most severe, in the order of the greatest relative prevalence, were New Jersey, Connecticut, Massachusetts, Minnesota, Delaware, Rhode Island and Pennsylvania. In only four states—Nevada, New Mexico, Georgia and California—were no cases reported.

The statement is frequently made that not enough is being done to control and reduce the spread of whooping cough. Thus Morse has recently voiced a strong demand for increasing efforts in this direction, and he urges an educational campaign to convince physicians and the general public of the seriousness of whooping cough and of the necessity of a much stricter enforcement of notification and isolation than is now practiced. It is accepted that the disease is caused by a small bacillus, discovered by Bordet and Gengou, which is transferred in the sputum from the sick to the well. This bacillus is probably present in the respiratory tract from the earliest moment of infection, and it is demonstrable in the sputum long before the diagnosis of whooping cough can be made from the symptoms.

SUMMARY OF EXAMINATIONS FOR LICENSURE OF PHYSICIANS BY THE ILLINOIS STATE BOARD OF HEALTH FOR THE YEAR 1916.

	January.		May.		June.		October.		Total.		Per cent failure.
	P	F	P	F	P	F	P	F	P	F	
Boston Univ. Sch. of Med.			1						1		
Chicago Coll. Med. and Surg.	11	2	20		68	10	33	8	138	20	12.6
Chicago Hosp. Coll. of Med.		3	1	3		3	2	4	3	13	81.2
Coll. of Med. and Surg., Chicago.		1		1		1				2	100
Detroit Coll. of Med.				1		1	1		1	2	66.6
Eclectic, Cincinnati.					1				1		
Female Institute, Charcow								1		1	100
Hahnemann, Chicago.	2		4		9	2	1	1	16	3	15.7
Hospital, Louisville.		1						1		2	100
Howard Univ., Washington, D. C.		1	1			1	1		2	1	33.3
Illinois Med. Coll.		1				1				2	100
Imperial Univ., Moscow.		1				1				2	100
Indiana Univ.			1				1		1		
Jenner	1	1	1		3	3	2		7	4	36.3
Johns Hopkins						1			2		
Loyola Univ.	10	7	32	1	27	16	20	6	89	30	25.2
Marquette Univ.	1								1		
Med. Coll. of Virginia.						3	1		4		
Meharry Med. Coll.	1	3	3	3					4	9	69.2
Minnesota Hosp. Coll.						1				1	100
Natl. Univ., Chicago.		1								1	100
Natl. Univ., Athens	1							2	1	2	66.6
Natl. Univ. Arts and Sciences.		1	1			1		1	1	3	75
New York Homeo. Med. Coll.	1								1		
Northwestern	4		17		17	2	2		40	2	4.7
Ohio State Univ.					1				1		
Reliance			1					1		2	100
Rush	7		23	1	37	1	11		78	2	2.5
St. Louis Coll. P. and S.								1	1	1	100
St. Louis Univ.					16		1		17		
Univ. of Geneva.						1				1	100
Univ. of Illinois.			44		48	2	6		98	2	2
Univ. of Iowa			1				2		3		
Univ. of Louisville.		1			1	2	1		2	3	60
Univ. Med. Coll., Kansas City, Mo.	2								2		
Univ. of Michigan.							1		1		
Univ. of Pennsylvania				1	1		1	1	2	2	50
Univ. of Toronto.					1				1		
Vanderbilt Univ.							1		1		
Western Univ., Ontario.	1								1		
Total	43	23	155	12	231	51	88	27	517	113	
Per cent failure											17.93

P—Passed.
F—Failed.

RESULTS OF THE PHYSICIANS' EXAMINATION HELD BY THE ILLINOIS STATE BOARD OF HEALTH IN CHICAGO.

October 10, 11, 12, 1916.

Physicians:				
Present		123		
Passed		88		
Failed		27		
Incomplete		8		
Passed.				
College.		Year Grad.	Total No. Passed.	
Bennett	1915 (1 ⁴),	1915	2	
Chicago College, Medicine and Surgery.....				
.....	1915 (1), 1915 (2 ²), 1916 (5 ²)	1916	33	
Chicago Hospital College of Medicine.....	1915 (1 ⁴),	1916	2	
Detroit College of Medicine.....		1904 (1 ³)	1	
Hahnemann, Chicago.....		1916 (1 ²)	1	
Howard University, Washington, D. C.....		1914 (1 ³)	1	
Indiana University.....		1916	1	
Jenner		1916 (2 ²)	2	
Johns Hopkins.....		1915	1	
Loyola	1916 (6 ²),	1916	18	
Medical College of Virginia.....		1906	1	
Northwestern		1916 (2 ²)	2	
Rush	1903 (1), 1914 (1)	1916	11	
St. Louis University.....		1914	1	
University of Illinois.....		1916	6	
University of Iowa.....	1907 (1),	1916	2	
University of Michigan.....		1916	1	
University of Pennsylvania.....		1903	1	
Vanderbilt University.....		1916	1	
			88	
Failed.				
College.		Year Grad.	Total No. Failed.	
Bennett Medical College.....				
.....	1910 (1 ⁸), 1915 (1 ⁴), 1915 (1),	1916 (3)	6	
Chicago College Medicine and Surgery.....				
.....	1915 (1 ⁵), 1916 (1 ²), 1916 (6)		8	
Chicago Hospital College of Medicine.....				
.....	1915 (1 ² -1 ⁶), 1916 (1 ³)	1916 (1)	4	
Female Institute, Charcow.....		1914	1	
Hahnemann, Chicago.....		1915	1	
Hospital, Louisville.....		1904 (1 ¹⁰)	1	
National University, St. Louis.....		1916 (1 ²)	1	
National University of Greece.....		1905	1	
Reliance Medical College.....		1911 (1 ⁵)	1	
St. Louis College Physicians and Surgeons.....		1910 (1 ⁶)	1	
University of Athens.....		1884	1	
University of Pennsylvania.....		1896 (1 ²)	1	
			27	

In this table, large numerals in parentheses, as (1) indicate number of candidates.
Small numerals in parentheses, as (2) indicate number of examinations taken by candidates.

A TREATMENT FOR TUBERCULOSIS.

A VERY INTELLIGENT woman, residing in the eastern part of the State, has a son suffering from tuberculosis. A short time ago, she received the following letter:

"i heard your boy had consumption i have heard if a person would cut the heart out of a rattel snake and swallow it warm while the snake was dying but be careful don't let the snake bite itself"

Unfortunately, or fortunately, "rattel snakes" are very hard to obtain in Illinois at the present time.

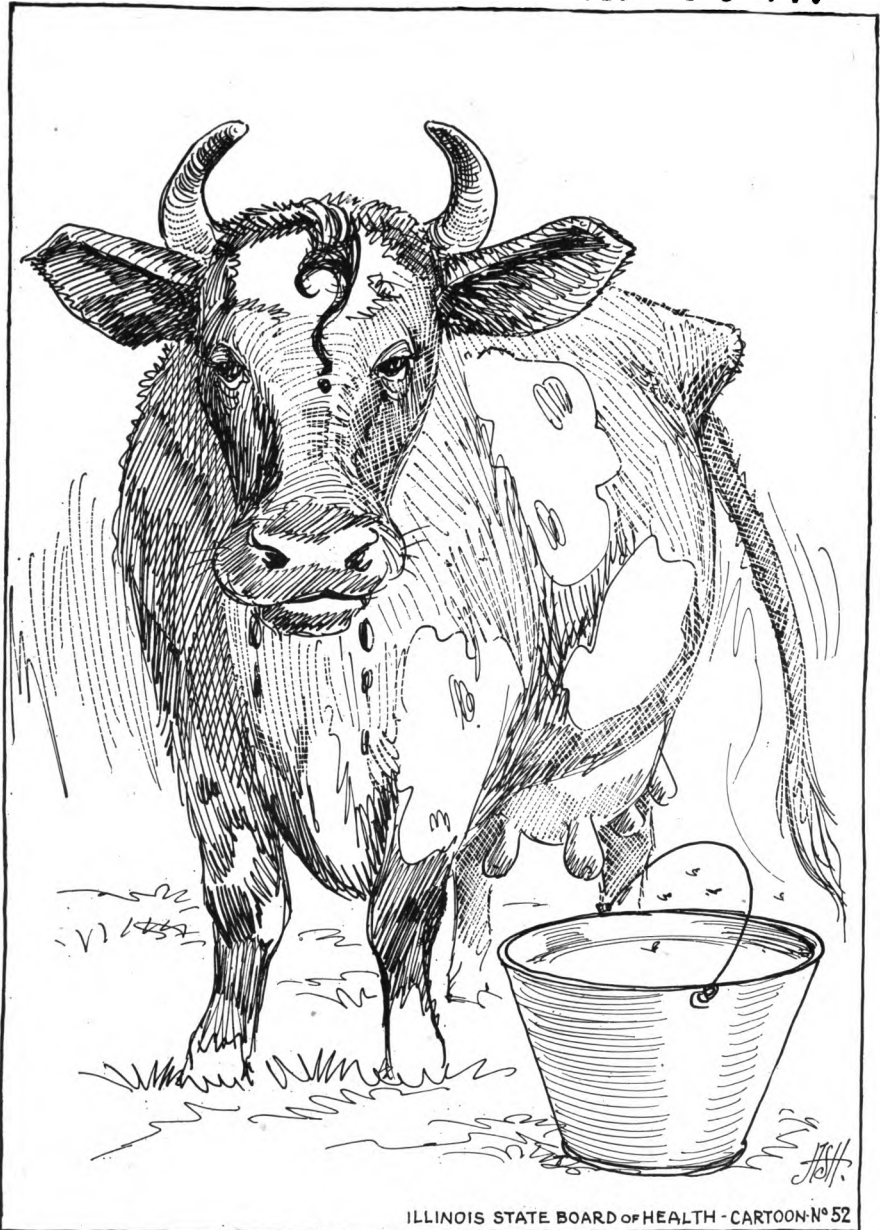
BABY BORN WITH SMALLPOX.

SOME TIME AGO, over in Pike County, there was born a baby whose body was fully covered with a well-marked pustular eruption which proved to be smallpox. It was ascertained that the mother of the child had been ill about six weeks before her confinement and was said to have suffered from "chickenpox."

PHYSICIANS TO WHOM CERTIFICATES WERE ISSUED BY THE ILLINOIS STATE BOARD OF HEALTH FROM OCTOBER 1, 1916, TO DECEMBER 31, 1916.

Name.	Age	Address.	College.	Year of Grad.
Aron, Benedict.....	29	6337 S. Harvard, Chicago.....	Chicago Coll. M. & S.....	1916
Coen, Walter William.....	24	816 S. Ashland, Chicago.....	Chicago Coll. M. & S.....	1916
Cotton, Schuyler Opp.....	25	2035 W. Jefferson, Detroit, Mich.	Coll. of Med. Univ. of Ill.	1916
Cox, Henry Hoyt.....	25	Alton, Ill.....	Rush.....	1916
Davidson, Finis F.....	32	Eddyville, Ill.....	Loyola University.....	1916
Dombrowski, Edward F.....	26	1347 Noble st., Chicago.....	Chicago Coll. M. & S.....	1914
Ellis, Edward Kent.....	24	Murphysboro, Ill.....	Natl. Univ., St. Louis. (Recip. Missouri.)	1915
Halpert, Joseph D.....	31	1208 Independence boul. Chicago.....	Chicago Coll. M. & S.....	1916
Hansen, Theodore Lorentz.....	25	St. Luke's Hospital, Chicago.....	N. W. U. Med. Sch.....	1916
Hirsch, Edwin Walter.....	23	3589 Indiana ave., Chicago.....	Rush.....	1916
King, W. Ivan.....	26	1832 W. Adams st., Chicago.....	Rush.....	1916
Koch, Herman Carl.....	22	Indianapolis, Ind.....	Coll. of Med., Univ. Ill.	1916
McDermott, John Joseph.....	29	30 N. Michigan boul., Chicago.....	University Michigan..... (Recip. Michigan.)	1914
McGennis, Patrick.....	39	City Hospital, St. Louis, Mo.....	St. Louis University..... (Recip. Missouri.)	1914
McReynolds, Ralph.....	31	Knox City, Mo.....	Rush..... (Recip. Missouri.)	1913
Plant, Thomas William.....	34	4445 W. Van Buren st., Chicago.....	Loyola University.....	1916
Porter, Arthur Silas.....	36	Linton, Ind.....	Loyola University.....	1916
Reasner, William F.....	30	Department of Health, Chicago.....	Jenner.....	1912
Rogers, Maurice Pearse.....	23	Rockford, Ill.....	Rush.....	1916
Rowland, Samuel Joy.....	25	Los Angeles, Cal.....	Coll. of Med., Univ. Ill.....	1916
Rupp, Jacob Roth.....	28	100 Mission rd., Los Angeles, Cal.	Rush.....	1916
Senear, Francis Eugene.....	27	Ann Arbor, Mich.....	Univ. of Michigan..... (Recip. Michigan.)	1914
Tiedeman, Ian Davis.....	26	Los Angeles, Cal.....	Coll. of Med., Univ. Ill.....	1916
Twiss, Henry Irving.....	36	944 E. 7th st., St. Paul, Minn.....	Boston Univ.....	1903
Weaver, Archibald Carlton.....	30	Hoopston, Ill.....	Western Reserve..... (Recip. Ohio.)	1911
Willy, Ralph Gilmer.....	23	Kimball, S. Dak.....	Rush.....	1916
Zimmerman, Emil Henry..	31	6001 W. 26th st., Cicero, Ill.....	Bennett.....	1913

THE QUESTIONABLE COW.



ILLINOIS STATE BOARD OF HEALTH - CARTOON No 52

"Oh see the Cow! The gentle little Cow!
With a Curl in the Middle of its Forehead....
When its Milk is Good its very very Good..
But when it is Bad it is Horrid....."

ILLINOIS HEALTH NEWS

"THE GREATEST WEALTH OF THE COMMONWEALTH IS HEALTH"

ILLINOIS STATE BOARD OF HEALTH
OFFICIAL MONTHLY BULLETIN

[Printed by authority of the State of Illinois.]

PUBLISHED AT SPRINGFIELD.

Entered at the Postoffice at Springfield as Second-class Matter.

Vol. III, No. 3.

MARCH, 1917.

New Series

A New Dignity for the Baby.



At last the Young Human Receives
Consideration.

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For the diagnosis of diphtheria only. (Outside the city of Chicago.)

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WEST STATE LABORATORY. Galesburg
For the diagnosis of diphtheria only.

STATE BOARD OF HEALTH DISTRIBUTING STATIONS.

(One at every county seat and in many other important cities of the State. There are 278 such stations throughout the State and 54 in Chicago.)

FREE DIPHTHERIA ANTITOXIN.

For the Treatment and Prevention of Diphtheria.

FREE SCHICK TEST OUTFITS (Obtainable only at Springfield).

For the Determination of Susceptibility or Immunity of Individuals to Diphtheria.

Distributed only when ten or more tests are to be made in one day.

FREE TYPHOID VACCINE.

For Immunization against Typhoid Fever.

FREE NITRATE OF SILVER SOLUTION.

For Prevention of Blindness from Infection at Birth.

FREE LABORATORY SPECIMEN OUTFITS.

For shipment of Specimens of Diphtheria, Tuberculosis and Typhoid Fever to the Laboratory.

FREE PAMPHLETS ON CONTAGIOUS DISEASES.

Rules of Quarantine, etc.

*Wassermann Test and Complement Fixation for indigent persons only.

This bulletin sent free on request addressed to Dr. C. St. Clair Drake, Secretary,
State Board of Health, Springfield, Illinois.

ILLINOIS HEALTH NEWS

[Printed by authority of the State of Illinois.]

This bulletin will be sent free on request addressed to the Secretary, Illinois State Board of Health, Springfield, Illinois.

VOL. III, No. 3.

MARCH, 1917.

NEW SERIES.

BETTER BABIES.

Suggestions for Organizing and Conducting Better Baby Conferences.

WITHIN THE PAST few years, there has been an astonishing awakening as to the importance of devoting more attention to babies for the purpose of producing a better physical and intellectual type of men and women. To direct this interest into a channel which would be productive of practical results, it was found necessary to educate parents as to what constitutes a sound baby or a normal baby. It was essential that there should be some standards toward which mothers should strive and it was found that the opinions in this regard entertained by large numbers of intelligent people were far from satisfactory.

Just as physical culture enthusiasts among adults strove for muscular development which approached deformity rather than natural development, so it was found that mothers were striving for mere fatness, for abnormal physical and mental accomplishment. The prevailing aim was overdevelopment rather than normal development and, not infrequently, the overdevelopment desired was not of a kind that would give promise of a thoroughly satisfactory child.

Excellent textbooks have been written for the guidance of mothers in the care of their babies and these have been followed religiously by scores of parents of the more conscientious sort, and yet, with all the good they have done, type and printer's ink will not take the place of actual demonstration.

It was on account of the demand for "the visualization of knowledge" about babies that the Better Baby Conferences have sprung into such universal favor. At such conferences, conducted in a manner which imposes no hardship upon the child, expert physicians pass upon the physical and mental standing of individual babies, employing the best of scientific methods in reaching their conclusions. The

methods are exact and the parent is rewarded for a little effort by a definite opinion of his child's good points and his shortcomings. This opinion is given in terms that are "standardized"—that is, the contests conducted throughout the nation are so generally uniform that the scoring in one locality has its value in other localities. Further, the baby contest, aside from its practical value, brings into play the natural parental pride, the spirit of friendly rivalry and the interest of all persons directly or indirectly connected with the contestants.

Perhaps greater than the value to the individual child, is the benefit to the child yet unborn and to child life as a whole—the centering of intelligent interest in children and in their sane and rational development.

The enthusiasm over such conferences throughout Illinois within the past few months, has flooded the offices of the State Board of Health with inquiries for specific directions as to how projects of this kind shall be conducted and this demand for information is the cause for the publication of the following pages.



BETTER BABY CONFERENCE is the modern development on scientific and practical lines of the "baby show" of twenty years ago. It is the application of "live stock principles" to the young of the human race. It is the scientific measuring, weighing, examining and testing of babies with the view of improving conditions of child life and thereby securing better, stronger, smarter and happier babies who will become finer types of American citizens.

Its aim is the development of the good points and the correction of the weak points of the young "human animal." It proceeds upon the theory, now proven absolutely sound, that it is our duty to make a good animal of a child before we concern ourselves as to his intellectual development.

The Better Baby Conference teaches the parents how to improve the care of their children already born and to protect those yet unborn. It aims to arouse interest in all forms of child welfare work and to awaken a sleeping, or a recently awakened public to the realization of its duties and responsibilities toward all children. It is an opportunity to teach general and fundamental facts about the care of babies and to promulgate information of especial interest in the care of babies of the particular community.

The baby conference of to-day is a popular thing, appealing to the public sentiment, yet it is also a scientific thing, favored by eugenicists, social workers and physicians whose aim is the betterment of the human race.

BETTER BABY CONFERENCES can be effectively carried out in a small way by a half dozen people, quietly working through

some interested organization, or they can be made the center of a tremendous welfare movement in which hundreds of persons can have a part. In connection with the scoring contests, can be held exhibits, lectures, motion picture shows, sermons, demonstrations and educational work looking toward permanent welfare organization. For the community in which there has never been inaugurated systematic and organized public health and social service work, nothing makes a more stimulating appeal to the public or a sounder entering wedge for later activity than contests of this kind.

The scoring contest may be made the nucleus of a welfare campaign which may be broadened to include all problems of children up to six years of age; the better care of women before and at confinement (since the welfare of babies can not well be separated from the welfare of their mothers); proper birth registration and what it means to the baby as well as the community; the prevention of blindness; child labor legislation, the midwife problem, etc., etc.

A baby conference can be conducted by a woman's club with volunteer services from physicians and nurses, or it can embrace scores of active organizations working together for weeks in a project community-wide in character. Any baby contest, large or small, can be successful if it is carefully planned, backed by popular organizations and carried out with system. Whether it be large or small, however, to guarantee success, every detail must be carefully worked out and all complications and difficulties must be anticipated.

The plan given here is merely suggestive. It can be elaborated or simplified to suit the needs of any particular community.

The recent epidemic of infantile paralysis in the east may make it necessary to modify the plans for Better Baby Conferences in Illinois. In order to avoid any danger of infection, committees should consult with State and local health authorities before proceeding to bring together groups of babies. The existence of infantile paralysis need not deter a community from a properly conducted better baby campaign; except in case of epidemic, such a celebration will be helpful in developing public interest in preventive and curative measures to control the spread of the disease.

ORGANIZATION.

THE BETTER BABY CONFERENCE, to be successful, should be given under the auspices of some organization interested in the public health and community welfare; but it should have the support and cooperation of all agencies interested in child welfare work as well as those interested in community betterment. The contest should be made to appeal to all classes, colors and creeds. In it social lines should not appear, nor should it in any way savor of the patronage of the poorer classes by those more fortunately situated. As in all other features of public health work, rich and poor are upon the same plane and are of equal importance.

In perfecting the organization, the list should be headed by the mayor and other city officials. The health officer should be consulted and should be asked to take an important part. His official cooperation may mean much to the enterprise, as may that of the county medical society and the physicians of the community. Co-operation and support should be secured from the woman's club, the churches, school teachers, parents or patrons' clubs, nurses' associations, the charity organizations and social settlements, the Y. M. C. A. and the Y. W. C. A., the camp fire girls and the boy scouts, labor unions and fraternal organizations. The newspapers should be urged to give their cordial support. In most communities in which contests have been held, they have proven the livest sort of news for the local press. The chamber of commerce or such other league of business men as there may be in the community, will usually endorse the contest and, not infrequently, will assist in financing it.

If the presidents or representatives of all of these organizations will serve as members of an honorary committee, the force of the movement will be greatly increased; but practical experience indicates that such an honorary committee must not be relied upon for a great part of the actual work of the undertaking.

In committees in which many of these organizations do not exist, it is still possible to carry on successful contests. The organizations that do exist can be banded together and the town with cooperating churches, woman's club and newspaper has the nucleus for a strong better baby movement.

One of the great benefits to be derived from the contest is the fact that it may bring together so many organizations and individuals in the community for a common aim and that aim such a vitally important one.

THE APPOINTMENT OF AN EFFICIENT EXECUTIVE COMMITTEE is the first and one of the most important steps in launching a Better Baby Conference. This committee should be made up of individuals who can secure the cooperation of other agencies. They should plan all of the details and direct all arrangements before and during the contest. They should appoint all other committees (or committee chairmen) and have general oversight of the work of all committees.

The executive committee should have permanent headquarters, centrally located and open to inquiries by mail or telephone for some time (usually for two or three weeks) before the contest.

THE NUMBER AND SIZE OF COMMITTEES must depend upon the scope of the plan. Under the executive committee, there should be a committee on place and equipment, a publicity committee; a registration or entries committee; an examining and scoring committee; a committee on awards; a committee on exhibits

and demonstrations; a committee on lectures and a committee on follow-up work. This committee on follow-up work will have much to do with the establishment of permanent child welfare work in the community, if that is contemplated, or with the comparative ratings of babies if it is planned to hold the contest from year to year with the same babies undergoing subsequent examinations.

Sometimes a committee on finance and a committee on information, or an information bureau, are added to the foregoing committees.

Much of the success of any contest depends upon the care with which committees are chosen. There is no question but that the names of prominent people connected with the project will prove beneficial; but it must be remembered that many persons will "lend their names" to such a project without giving anything else. Bear in mind that mere names do not work.

In elaborate contests, connected with extensive child welfare campaigns, the salary of an experienced director may be a wise expenditure.

TIME AND PLACE.

THE BABY CONFERENCE which is held during a county fair and takes place in the woman's building at the fair grounds, has a distinct advantage in time and place. The crowds of people gathering there from town and country and the great interest in "prize winners" of all kinds, will add popularity to the movement.

Then, too the conference held during the fair presents an opportunity to reach hundreds of farm babies who could not be reached at any other time or place and to whom the advantages of the conference are invaluable.

If it is impracticable to hold the conference in connection with some established gathering of people, such as a fair or chautauqua, it may be successfully carried out in a suite of rooms in an office building, in the parlors of a hotel, in a parish or settlement house, in the auditorium of a school building, in a church or club, or in the Y. W. C. A.

THE PLACE SELECTED must be well heated, lighted and ventilated, with every convenience for the health and comfort of babies. Nothing can be more tragic than to have such a contest, designed for the welfare and betterment of infants, result in the illness or death of a child, due to the lack of care or foresight of those behind it.

Tents are not satisfactory under ordinary circumstances on account of lack of conveniences and sanitary facilities. Tents are very hot in midsummer and are apt to be damp in inclement weather.

THE SCORING SHOULD BE DONE during the morning and early afternoon—never at night. The examinations should be made in private, only the mother, the nurse, the scorer and the examiner being present.

At least thirty minutes should be allowed for the complete examination of each child and the committee on registration should appoint a definite hour for each child. It is brutal to have mothers and babies waiting for long periods of time for examination.

In order to save time and prevent confusion, mothers should be requested not to bring their children before the hour designated; but to be very prompt at the appointed time. It is unjust to the child to examine him when he is tired and fretful.

The publicity committee may find it desirable to hold a public examination in order to arouse interest and educate the people as to the value of examinations. If the rooms are not so arranged that the ordinary examinations may be seen from without, (as suggested in the following paragraph), the demonstration should be given in some public place, in plain view but at some distance from the audience and each step of the process should be carefully explained.

ROOMS AND EQUIPMENT.

THE SCORING COMMITTEE will find it almost necessary to have at least four rooms at their disposal one of which should be small and may be separated from the others. In elaborate contests, it may be found practicable to have one large room divided into smaller rooms with glass partitions. By allowing broad passages between these compartments, spectators may view the examination from outside and without interfering with the work of the examiners. If such a plan is carried out, the floors in the passages should be deadened and the partitions should be substantial, so that the examining rooms may be kept quiet. Curtains should be provided, so that the glass may be covered when desired or when the crowd of spectators becomes too large.

THE RECEPTION ROOM, where the contestants are received and where they wait until called to the examining room, should be large enough to comfortably accommodate twenty-five mothers and babies. It should be light and airy and scrupulously clean, with comfortable chairs and cots, a few toys, cool water and individual paper cups, large paper bags for the babies' clothes, pins, towels and large squares of cotton flannel.

In or near this room should be located the entries committee with table, blanks and stationery. The entries committee should be on hand all through the contest to enter the babies and start them on their rounds and to give necessary information to interested persons.

THE ROOM FOR MENTAL TESTS should be quiet and free from interruption. (If possible have several of these small rooms, each with its examiner.) Only the parent and physician should be present for this test. The room should be furnished with a couple of chairs, a table and the special articles employed in the test such as toys, pictures and mirror.

THE THIRD ROOM is used for weighing and measuring. It should be large enough to accommodate three examiners and three nurses. Each physician should be supplied with a table, accurately tested scales, weighing pads, a measuring board, a pair of calipers or pelvimeter, new linen tape measures, steel tape line, plenty of tissue paper, a dermatographor, flesh pencil (for marking measurements) and pen and ink (for marking score cards).

The measuring board should be 4 feet long with stationary head and a footpiece which slides in a groove behind the scale.

THE FOURTH ROOM is for general examination, and should be large enough to accommodate four or five physicians. Each should be supplied with a table and chair, stethoscope, wooden tongue depressors, flashlights, cotton, and other necessary articles.

In every room there should be running water, if possible. If running water is not available, there should be an abundant supply of pure water with plenty of paper towels and, placed conveniently for each examiner, there should be a bowl of antiseptic solution prepared according to the direction of the physician in charge.

One of the lessons which the conference is supposed to teach and one which can never be repeated too often in any form of public health work, is that of absolute cleanliness. Soap, water and paper towels should be much in evidence and all hands should be washed after handling one baby and before turning attention to another.

In one room provision should be made for sterilizing instruments. There should be roomy and convenient toilet facilities. A refrigerator and a nearby sleeping room will be found of advantage. A check room is absolutely necessary.

At times, if requested, physicians or surgical supply houses will loan much if not all of the necessary equipment.

IF THE CONTEST MANAGEMENT is not pressed for funds, money should be spent freely to attain scrupulous cleanliness. Where possible, the woodwork should be of white with high gloss finish; the floors, unless of hard wood and perfect—should be covered with linoleum in light colors and simple design; sash curtains, if employed, should be of plain material and freshly laundered; all persons coming in contact with the babies should wear gowns covering their street clothing or frocks of wash material. A soiled apron or neglected finger nails on the part of a nurse or examiner may undo the benefits of a thousand wise sayings and a score of high-sounding lectures.

Equipment, furniture, instruments and utensils should be new or newly enameled or polished. Pans and dishes should be of white enamel.

A 25 cent can of white paint will cause a deal table to preach a sermon on cleanliness.

Behind the appearance of cleanliness, however, there should be real cleanliness which means soap, scrubbing brushes and hard work.

PUBLICITY.

NO PART of a Successful Better Baby Conference is more important than the advertising. The plans and purpose of the conference should be published as widely and as often as possible by means of posters, handbills, motion pictures, newspaper articles and announcements in public gatherings. Of all forms of publicity, none is so important as the public press, and newspaper cooperation must be obtained. If the committee prepares special child welfare stories in good newspaper form, the papers will not refuse them and they have permanent educational value. It may be well to have a newspaper woman on the publicity committee to prepare this material.

If the conference is to be held at the county fair, the official bulletins and the premium lists should announce it.

Notices of the date and object of the conference should be given in churches, schools and clubs. Popular lectures or short talks before almost any public gatherings will stimulate interest in the conference and at the same time present an opportunity for giving instructive hints to parents.

In rural communities, the distribution of announcements from some central place, preferably the post office, is an excellent way to get the information into every household.

In giving out information for newspaper or for other publicity purposes, it is always better to furnish written "copy," and such copy should always be handled by the same person or committee. The reporters should be notified as to what person is the official spokesman of the conference.

At times, in communities where public health and welfare work have not been done, newspapers expect to carry conference publicity as paid advertising matter. If it is brought to the attention of the editor or publisher that such space and publicity are invariably contributed to the cause throughout the length and breadth of the Nation, the newspapers will readily fall in with the plan.

As a matter of fact, newspapers earn their existence by the sale of their space and the demands upon them from charitable and philanthropic agencies are enormous. Child welfare, however, like tuberculosis, never fails to obtain their support. Without the newspapers the enormous progress of the past few years in the conservation of child life could never have been accomplished.

NO LINE OF PUBLICITY is more important than the adoption of a special community slogan for the conference. Dozens of short, well-phrased expressions have been successfully used in different towns and may be borrowed; but if something individual and unique can be found for your town, so much the better. "Better Babies for Bigger Burlington," "Save the Babies and the Men will Take Care of Themselves," "Healthier Babies are Wealthier Babies,"

"The Healthy Baby is the Happy Baby," "Better Air, Better Fare, Better Care for Every Baby," are some suggestions. If a prize is offered for the best slogan, it will stimulate interest and make good newspaper material.

Having selected your slogan it should be used over and over again till it "gets" the public by force of repetition. Put it on window cards with an attractive baby's picture; use it on banners; print in on the contest score cards and application blanks; paste it on billboards; distribute it on handbills and repeat it in newspaper headlines. Ask your local artist to draw or paint a smiling baby, and have cuts made from the picture; reproduced on all letterheads, bulletins and circulars, this is attractive and effective publicity.

Adopt conference colors (baby blue and white are always popular) and use them in banners and other decorations.

Sometimes celluloid buttons bearing the slogan are good advertising but they are expensive and only successful when thousands of them are used.

REGISTRATION.

THE REGISTRATION OR ENTRIES COMMITTEE is charged with a very important part of the work. It should have at least ten members, people with influence and executive ability who will work continuously, for it is their duty to interest women in the contest and persuade them to enter their babies. They decide upon the classes of entries and the division of prizes. They must receive all applications for admission to the contest and assign them in the various divisions. They appoint the time for each examination and notify the parents of the day and hour.

Different aged children should be examined on different days or at different hours. It greatly simplifies the work for all concerned if the babies of one age division are all examined at one time.

They must announce through the newspapers the date of the contest and just when applications for entrance will be received at headquarters.

They must state the age limit on entries and the hour at which the lists will be closed. One or two members of this committee should be constantly in attendance during the contest, and should be able to explain to parents the details of the examination which the baby is to undergo.

SCORING.

THE MEMBERS OF THE SCORING COMMITTEE must be prepared to give much time to the work. They must be accurate and quick in filling score cards and recording the findings of the examiners. For the average contest, there should be at least twenty scorers. One person should be in charge of the scorers and it is very important that the scorers become perfectly familiar with

the score card and the method of using it, before the contest begins. This may require several meetings and conferences.

THE SELECTION OF PHYSICIANS AND NURSES for making the examinations is most important. There must be the right number for each day, and when an unusual number of examinations are to be made, each examiner should have an assistant.

If possible, there should be specialists for the different lines of work; a neurologist to make the mental test; an eye, ear, nose and throat specialist; a dentist; several physicians for the physical examinations; trained nurses to make measurements and act as dressing room assistants. Local physicians and nurses are usually glad to do this work, and as there should be at least one examiner for each ten entries, it is possible to use as many of them as are willing to serve.

All examiners should understand the necessity for being prompt at their appointments. Failure to do so will disarrange the entire schedule of examinations and be unfair to all concerned.

If a "dress rehearsal" can be held a few days before the contest, with examiners and scorers in attendance, much time may be saved and confusion avoided.

THE COMMITTEE ON PRIZES decides the number and value of prizes, medals, certificates and ribbons and arranges for the formal presentation of all premiums at the close of the contest.

Merchants, banks, organizations and prominent citizens are usually glad to donate the prizes required. The prizes may be as simple or elaborate as seems desirable. As a rule, it is better to have premiums of such character that they may be preserved for many years. Silver cups, suitably inscribed, prove most satisfactory.

The prizes should be displayed at some central place—preferably in the show window of a popular store—for some time before the conference. Attention should be given to the premiums by the newspapers.

In presenting the prizes at the end of the contest, the occasion should be made as much of an event as possible. It should be widely advertised. The prizes should be presented by the most distinguished person or persons obtainable—the Governor of the State, a senator, member of Congress, the mayor, a prominent physician or some other person whose name will add interest to the occasion.

It may be found desirable to have each prize presented by a different person.

After the contest is over, a group photograph should be taken showing all of the contestants together with the persons who have awarded the prizes.

The committee should bear in mind constantly that receiving a prize at a Better Baby Conference is a matter of the utmost interest to parents. The trophy won, the photographs taken on the occasion and the newspaper articles published about it, all have a decided value in the eyes of

the proud father and mother. This parental pride is an important and valuable factor not only in the success of the Conference but in the results to be derived from it.

In connection with the giving of prizes to Better Babies, a very interesting and unique feature is the prize contest in which mothers may compete for the best answers to a series of question on the care of the baby.

EXHIBITS AND DEMONSTRATIONS.

WHILE EXHIBITS AND DEMONSTRATIONS are not necessarily a part of a scoring contest, they can be so easily associated with it and are of such educational value that the opportunity should not be lost. A good child welfare exhibit, no matter how simple, illustrating local conditions and the work of local organizations, if placed near the rooms where the contest is being held, will prove a very popular feature. If possible, members of the exhibits committee should serve as guides or lecturers at the exhibit, and distribute circulars.

A demonstration which never fails to attract attention and interest is that of bathing and dressing the baby. This should be carried out by a graduate nurse. Life-sized manikins of the baby may be used in the demonstration. Local merchants are usually glad to lend clothing, tubs, towels and other equipment for this exhibition; they consider it splendid advertising.

A program of public meetings to be held in connection with the exhibit will arouse community interest in child welfare. The number and scope of such meetings should be determined by the local need. In some communities, a mass meeting at the close of the contest, with speeches by the mayor and other prominent citizens will focus all the efforts of the contest and result in the establishment of permanent welfare work of some sort.

In some communities several meetings of this kind, with formal lectures on child welfare and kindred subjects are necessary before people can be aroused to the need of permanent work. Lectures and demonstrations might be given on pure milk, the proper preparation of infant foods, the arrangement of sleeping quarters; talks on home hygiene, supervised play, sanitary clothing and toys, the prevention of infant mortality, children's stories, the conditions under which children work, school inspection, the health of parents and kindred subjects.

Motion pictures, effectively illustrating these subjects and many others, can be rented at reasonable rates from film agencies or obtained from public health organizations. As a result of the Better Baby Conference and the educational exhibits shown with it, many communities become interested enough to undertake fly-exterminating and clean-up campaigns, law enforcement in regard to birth and death registration, reporting and quarantine of contagious diseases, milk inspection, anti-spitting ordinance, frequent water analyses and other features of public health activity.

The committee on exhibits should encourage local merchants to give their show windows over to the display of appropriate baby fur-

nishings. Almost every kind of business, from hardware to jewelry, handles something for the baby and the enterprising merchant is glad to make use of the advertising possibilities of the contest.

THE SPECIAL COMMITTEE FOR FOLLOW-UP WORK, if there be one, should undertake the task of establishing permanent welfare stations, open air schools, playgrounds and other agencies for the improvement of babies as the natural outgrowth of the interest created by the contest.

The particular needs of the community will determine the direction of the follow-up work. Practical suggestions are: clean-up week, in which sanitation and beautification of the community are brought home to the public; the importance of regular milk inspection; the dangers of the fly; the necessity for obedience to quarantine regulations; visiting nurses and free medical advice available to those who need it; the application of the mothers' pension law; medical inspection of schools; the enforcement of birth registration laws and tuberculin tests for cattle; providing for all victims of infantile paralysis opportunity for proper after-care; the employment of a full-time health officer, etc. It is never wise to undertake too many new lines of work, but the outcome of a better baby conference should be some permanent community betterment and a great good can be accomplished if the enthusiasm is directed toward the right ends—or toward one much-needed end.

The plan of holding a second contest, six months or a year later, which shall be an "improvement contest," may be adopted by this committee—in which case, records of all examinations and tests should be carefully filed away. Occasional reminders should be sent to parents, urging the continuation of baby's improvement, or a simple monthly report of the baby's condition might be requested by the committee. Six months or a year later (the date to be announced by the committee at the time of the original contest) an invitation or notice should be sent to all former contestants. The children should be examined and tested as carefully as the first time. After comparison of the old and new records, prizes should be awarded to the children showing the greatest improvement in weight, in general condition and in growth.

PROCEDURE.

WHEN THE BETTER BABY CONFERENCE ORGANIZATION IS COMPLETED, there should be a meeting of all committees and the general plan should be fully discussed. Each member of each committee should be made to clearly understand just what is expected of him. To centralize responsibility, it is perhaps better to charge the committee chairmen with the duty of instructing the members of their own committees. In this case, the chairmen should be kept in constant and close touch with the central or executive committee.

There should be at least one general meeting of the committees and representatives of all cooperating agencies, at which the complete plan is fully explained by some one familiar with it. Even those who

take no active part should know enough about the conference to talk about it intelligently.

AFTER DATES and details are settled, the publicity committee should bring the whole project to the people through the newspapers. The dates for the actual contest should be determined well in advance and the public should be advised as to the dates between which applications for entry will be received. The date for closing entries should be long enough before the contest to give the committee a definite knowledge of the number of contestants, so that proper arrangements may be made for them. Nothing is more unfortunate than to have scores of fretful babies received at the last moment, with inadequate provision for their care.

APPPLICATION BLANKS and score cards should be provided and the applications should all be received in regular form. Specimen blanks will be found in these pages and the blanks themselves may be obtained upon application to the State Board of Health.

The application should be filed according to the classes of entries as follows:

CLASSES OF ENTRIES.

- Class I. Boys 6 to 12 months.
- Class II. Girls 6 to 12 months.
- Class III. Boys 12 to 24 months.
- Class IV. Girls 12 to 24 months.
- Class V. Boys 24 to 36 months.
- Class VI. Girls 24 to 36 months.

If desirable, other classes of entries may be for—

- Class VII. Boys 3 to 4 years.
- Class VIII. Girls 3 to 4 years.
- Class IX. Boys 4 to 5 years.
- Class X. Girls 4 to 5 years.

In some cases these classes are subdivided into groups of babies of (a) rural communities and (b) cities; all communities showing more than 2,000 population being classed as cities.

In addition to these class contests there will also be sweepstake and championship contests held among the successful initial contestants, as follows:

SWEEPSTAKES: Highest scoring boy, any age; highest scoring girl, any age.

CHAMPIONSHIP: Highest scoring child, any age.

GRAND MERIT PRIZE: Child showing greatest percentage of improvement in score since previous contest.

CONDUCTING THE CONTEST.

ON THE DAY OF THE CONTEST, the baby is brought in at the hour designated for that particular child and is received by some one acting for the registration committee.

By repeated trials it has been found that one person can make the mental tests as rapidly as two take measurements and three or four give the physical examination.

The mental test, which is designed only for the purpose of discovering whether the baby is actually mentally deficient, may be made by a psychologist or kindergartner, if a physician is not available.

Tactfulness, patience and familiarity with children are more important than professional training. The test should be made informally, in a quiet room and before the child is tired or nervous.

The examiner should mark X after each test in which the child fails; every X means a penalty, so where there are no defects, the score is left blank. Examiners do not compute scores—this is the work of the scoring committee.

This test need take only five to ten minutes. When it is finished, the baby is carried to the reception room and undressed. The bag holding his clothing is numbered and checked, the baby is wrapped in a square of cotton flannel and carried to the physical examination room.

II.—PHYSICAL EXAMINATION.

(Again the scorer marks X for each defect, but does not complete the score.)

A QUICK AND ACCURATE SCORER is a great help to the physician giving the physical examination. It can be done rapidly and at the same time thoroughly if the scorer, seated at one end of the table, calls out in turn the tests to be made and fills out the score card as the physician handling the baby announces his findings.

WHAT CONSTITUTES A DEFECT.

In order that the findings of different physicians may be more nearly equal, the following suggestions are offered for use with the score card.

FEATURES. Do not penalize except for *marked irregularity*, such as unusual depression in bridge of nose, receding or projecting chin, or receding forehead.

HEAD. Penalize for abnormal size in proportion to the rest of the body. The shape may indicate rickets or hydrocephalus. Examine carefully for soft spots indicating nutritional disorders.

HAIR AND SCALP. Penalize for milk crust, scabs, scaling or any eruption. A bald spot on the back of the head or brittle hair indicates nutritional disease. Penalize for dirty or dandruffy scalp. Do not penalize the child under 1 year for scanty hair.

FONTANEL. Do not penalize for delayed closure except in child over eighteen months of age.

NECK. Do not penalize minute glands. Penalize scars resulting from discharging sinus, eruption and following trauma.

CHEST. Do not penalize for barrel shaped chest under one year of age. Penalize for markedly depressed sternum, for soft ribs (bending in during inspiration) and for râles of any kind. If in stethoscopic examination, faulty breathing or heart murmurs are discovered, the mother should be advised to take the baby to her physician for thorough examination.

BACK. Penalize for any curvature in the spine—lordosis, hypophosis, or scoliosis.

ABDOMEN. Penalize for *abnormal* distention. Sometimes measurement is necessary to determine whether a protruberance is abnormal. Penalize for rupture of the navel or at the groin.

ARMS AND HANDS. Penalize for asymmetry (indicating nutritional disturbances). The proper length should be determined by putting both arms close to the sides. Will the ends of the fingers come two-thirds of the way down the thigh bone when arms and fingers are forcibly straightened? Look for flabby muscles in fat children as well as in thin. Penalize for nail defects caused by onychia and syphilis, and for brittle or bitten nails.

GENITALIA. Penalize for any discharges. Vaginitis is quite common. Adherent prepuce should not be penalized unless redundant or inflammation is present.

LEGS AND FEET. Penalize for flabby muscles, bow legs, knock knees, curvature of thigh bones, enlarged epiphyses from any cause and for flat feet after eighteen months.

POSTURE AND GAIT. Examine in sitting posture up to eighteen months of age. Do not penalize for gait until after the eighteenth month.

SKIN. Do not penalize for small insignificant birth marks, moles or bruises caused by minor accidents. Penalize for eruption of any kind even though very slight, and for scratches resulting from attempts to relieve an eruption. Rough hands and cheeks due to outdoor life should not be penalized unless excessive. Excessive hair on arms, legs, back or chest should be penalized, as should pallor from anemia.

NUTRITION. A child is abnormally "thin" when he appears so poorly nourished as to attract attention. He is abnormally "fat" when he is overburdened with fat and lacks strength to stand and walk easily.

III.—ORAL AND DENTAL.

(To be given by dentist if possible.)

THE EXAMINER should be provided with a pocket flash-light, head-light and such special instruments as he considers necessary for simple examinations.

MOUTH. Penalize for bleeding, swollen or spongy gums, or any form of stomatitis, gingivitis or inflammation. Penalize for coated or enlarged tongue.

TEETH. Do not penalize under eight months for delayed dentition. A child should have

8 teeth at 1 year
12 teeth at 16 months

16 teeth at 18 months
20 teeth at 2½ years.

Penalize for discolored, decayed teeth and for notched or ridged teeth.

IV.—EYE, EAR, NOSE AND THROAT.

(This examination should be made by a specialist.)

EYES. Penalize for pale mucous membranes resulting from anemia. Do not penalize for abnormal position of eyes showing merely racial traits. Abnormally shaped, defective or inflamed lids should be penalized.

EARS. Do not penalize for abnormal shape except when so marked as to indicate a neurotic tendency. Protruding or discharging ears should always be penalized.

NOSE. Penalize for obstructed breathing with the mouth closed and for discharge from the nose. Except for children under one year old, a depressed bridge caused by nasal obstruction and diseased cartilage or bone should be penalized.

THROAT. Examine every throat with a pocket flash-light. Penalize for diseased or enlarged tonsils. If the physician suspects the presence of adenoids he should make an examination with the finger.

The baby is now taken to the measuring room.

V.—MEASUREMENTS.

THERE SHOULD be at least two physicians (or nurses) and two scorers to make these tests. It saves time if one person does all the weighing and another all the measuring.

Have the room well lighted and the equipment conveniently placed.

It is most important that all measurements shall be exact and examiners must expect to do some remeasuring and weighing to insure accurate results. If examiners are careless or hurried, their figures will probably be challenged, in which case the chairman of the scoring committee should recall the child and measurements should be taken a second time.

In comparing actual measurements with the standard measurements, examiners should make allowance for nervousness and restlessness in the baby and penalize only for the following variations from standard, either above or below:

One-half inch in height.

One and one-half pounds in weight.

One-fourth inch circumference of head.

One-half inch circumference of chest.

One-half inch circumference of abdomen.

One-half inch antero-posterior or lateral diameter of chest.

One-half inch arm or leg measurement.

If the height of the child varies more than one-half inch from the standard for his age, he is penalized on height. In this case, however,

the height is accepted to indicate the age in the rest of the weight and measurement tests. That is, if a child of nine months is below height for nine months, he is penalized for height, but is carried for the rest of the test at the age to which his height corresponds. Hence, a 9-months-old child with the height of an 8-months-old child may score 80 per cent, provided he conforms to all other standards for an 8-months-old child.

HEIGHT. The child under two years must be measured lying down on the measuring board. His back should be flat against the board, his head exactly touching the head board in an easy position and his feet flat against the movable foot piece. After two years of age a child's height should be taken standing. Set the measuring board on end, stand the child erect on the head piece, the back of his head, trunk and heels touching the board, then adjust the sliding board to the top of his head. (One and one-half inch variation allowed.)

CIRCUMFERENCE OF HEAD. Place the tape firmly about the largest part of the head, the protruberances in back and front. (One-fourth inch variation allowed.)

CIRCUMFERENCE OF CHEST. Measure at the nipple line. (One-half inch variation allowed.)

CIRCUMFERENCE OF ABDOMEN. Measure at the navel line, with tape held easy. (One-half inch variation allowed.)

LATERAL DIAMETER OF CHEST. Measure with pelvimeter at nipple line. With fat children, the instrument should be pressed closely to the ribs. (One-half inch variation allowed.)

LATERAL DIAMETER OF CHEST FROM FRONT TO BACK. Measure with pelvimeter at nipple line. (One-half inch variation allowed.)

LENGTH OF ARM. Measure from the tip of the acromion to the end of the middle finger, when the arm is held close to the side with elbow and fingers straight. (One-half inch variation allowed.)

LENGTH OF LEG. Measure infants under two years lying down, over two years standing. Measure from the tip of the greater trochanter to bottom of foot. (One-half inch variation allowed.)

WEIGHT. One and one-half inch variation from standard allowed.

WHEN THE EXAMINATION has been completed, the mother leaves the score card with the scoring committee who complete the total score. At the close of the contest, time enough must be allowed for careful computation of all scores before the names of the prize winners are sent to the committee on prizes.

The five highest scoring babies in each class should be re-examined, if it is possible. Sometimes it is necessary to verify details, especially in the mental test, if several scores are very close.

To the mothers whose babies have scored very low or failed to qualify, an invitation should be sent to attend a special conference of mothers and physicians. At such a meeting, informal talks might be given by physicians on "Why Babies Fail," and how their health can be improved.

Women should be encouraged to ask questions, and urged to visit the welfare exhibit. These mothers should be interested in the six-months improvement contest and urged to try for the prize.

The prize awarding ought to be advertised as much as possible; connected with the presentation ceremony, a specialist should explain and emphasize the points which make the babies prize winners. The difference between health and beauty points ought to be made clear.

All score cards should be carefully preserved; they contain more accurate and comprehensive statistics than could be obtained in any other way and will be valuable to the welfare society and the health department.

The State Board of Health will gladly supply committees with uniform record sheets for recording results of better babies contests and ask that such sheets be filled out and returned to the office of the board.

EXHIBIT MATERIAL FOR BABY WEEK.

Owing to the fact that the supply of child welfare exhibits owned by the Illinois State Board of Health is very limited, and present demands are so heavy, no assurance can be given at this time that material can be secured.

The department has the following exhibit material suitable for "Baby Week":

POSTER.

- Cartoon Poster No. 2.—Let There Be Light.
- Cartoon Poster No. 5.—Preparing for Our Next Great War.
- Cartoon Poster No. 7.—Smallpox.
- Cartoon Poster No. 8.—The Children's Rogue Gallery.
- Cartoon Poster No. 10.—A Peddler of Disease and Death.
- Cartoon Poster No. 12.—The Health Man's Helper.
Visiting Nurse.
- Cartoon Poster No. 13.—The Consumptive Fly.
- Cartoon Poster No. 14.—Give the Baby a Fair Deal.
- Cartoon Poster No. 18.—There Ain't No Consumption in This Town.
- Cartoon Poster No. 22.—When a Fellow Needs a Friend.
Measles.
- Cartoon Poster No. 23.—The Schoolhouse Book Shelf.
- Cartoon Poster No. 24.—Whooping Cough, That's All.
- Cartoon Poster No. 25.—The Winter Fly.
- Cartoon Poster No. 27.—I Don't Believe.
- Cartoon Poster No. 28.—Watch Your Cough.
- Cartoon Poster No. 31.—A Common Carrier—of Disease.
- Cartoon Poster No. 32.—Blind Man's Buff. Child Perils.
- Cartoon Poster No. 34.—Registration of Babies and Dogs.
- Cartoon Poster No. 38.—The Three Meanest Men.
- Cartoon Poster No. 39.—A Drop of Prevention.

The following additional posters are available :

Clothing the Baby.
Disease Prevention.
How to Eat.
Health and the Commonwealth. School and Home Hygiene.
The Best Substitute. (Milk.)
Care Before Birth.
Modern Health Methods.
Sweets. The Results of too much Sweets.
We Are Better Babies.
Babies' Declaration of Rights.
We Are Breast Fed Babies.
For the Bottle Baby.
What Every Baby Wants.
The Well Dressed Baby.
Home Hygiene. Health Babies.

MECHANICAL MODEL EXHIBIT.

This exhibit is designed for fairs, expositions and large meetings of medical societies, women's clubs or civic organizations. It is too large and its installation too difficult to make it available for small gatherings of people.

Owing to the lack of appropriations for such purposes, the department is obliged to ask municipalities and organizations desiring the exhibit to defray the expenses of transportation, installation and operation; together with the traveling and living expenses of our experienced operator, who of necessity must accompany the exhibit.

The material weighs about 3,600 pounds, is shipped by express and occupies a space of 60 feet long, 10 feet wide and eight feet high.

FILM SERVICE.

"Summer Babies." A one-reel film demonstrating in an attractive manner how a large city cares for its babies during the warm weather.

"Tommy's Birth Certificate." A picture graphically portraying the troubles and difficulties that beset the path of a person whose parents have neglected to properly record his birth.

"The Great Truth." A two-reel story impressing the ravages of tuberculosis and the possibility of its cure under proper conditions.

The department does not furnish a machine for showing these films but arrangements usually can be made with the local picture theatres to run them at certain hours of the day or night.

STOCK LECTURE SERVICE.

"The Prevention of Untimely Deaths." 59 slides.

"Tuberculosis and Child Welfare Work." 59 slides.

"The Prevention of Disease and Promotion of Health." 59 slides.

"Milk and Dairies." 59 slides.

In case the films and lectures are loaned it is necessary that they be returned at once after being used, as the demand for them is so great

during "Baby Week" that the delay in returning them will cause cancellation of dates at the last moment.

PUBLICATIONS.

The Illinois State Board of Health will supply the following literature in reasonable quantities:

- "Our Babies and How to Keep Them Well."
- "Cause and Prevention of Tuberculosis."
- "Infantile Paralysis."
- "Don't Wait Until You Are Sick."
- "How to Avoid Diseases."
- "How to Fight the Fly."
- "Public Health in Epigram and Picture."
- "Disinfection."
- "Milk and Dairies."
- "Rules and Regulations. Contagious Diseases."

HELPFUL HINTS.

Loan or purchase of exhibit material for "Baby Week" can be secured from such sources as the Educational Exhibit Company, Providence, Rhode Island, and other firms, at rates which will be quoted on request.

Ask the managers of your local picture theatres to specialize in educational films during "Baby Week." The following suggestions are made: "The Error of Omission" (Essanay.) "Summer Babies" (Essanay). "The Man Who Learned" (Edison). "The Long and Short Haul" (National).

A booklet on "Baby Week Campaigns," published by the Children's Bureau, Miss Julia C. Lathrop, chief, Washington, D. C., as well as a pamphlet on Parental Care, Statistics of Children and Child Welfare Exhibits, can be secured on application.

"Birth Registration Test," published by the Children's Bureau, Washington, D. C.

SUGGESTIVE PROGRAM FOR BABY WEEK.

THE CHILDREN'S BUREAU of the United States Government, the National Association for the Study and Prevention of Tuberculosis and the Illinois State Federation of Women's Clubs have designated the week from May 1 to 6 as Baby Week. Unless it is deemed wise to observe Baby Week in connection with the county fair or some other special community celebration, the first week in May should be generally chosen. The fact that the same date is generally adopted throughout the country will contribute materially to the interest and publicity for the individual community.

The following program for the week is suggestive and elastic. Certain features may be elaborated and enlarged while others may receive less attention or may be omitted altogether. The present method of the celebration of Baby Week is the result of pioneer work in many communities. These suggestions have been gathered together from the

experience of past years in many of the states of the Union. It is especially urged that, when local conditions are favorable, original plans and features be developed in every possible way.

While not included in this program, it is understood that the scoring contest, previously described in these pages, will be held during the week and that the chief events of the contest will be coordinated with the general plan of the week in the manner which seems most convenient and effective.

PRELIMINARY WORK. Preparation for baby week should be begun several weeks in advance of the selected date. This preliminary work must include:

1. The appointment of all committees.
2. Securing literature such as described on other pages of this circular.
3. The definite arrangement of the program.
4. A careful study of the birth registration in the community to ascertain how completely all births are registered.
5. A study of infant mortality in the community.
6. Preparation of this information relative to the "baby problem" of the community for use in an exhibit.
7. Wide publicity relative to the community's baby problem, the scoring contest and baby week program through the newspapers.
8. Issuance of a proclamation by the mayor and health department making baby week an official community affair.

THE PROGRAM.

FIRST DAY.*—INAUGURATION DAY.

Mass meeting with address by mayor or health officer. Distribution of flags or banners by school children, open air crusaders or boy scouts to all houses in which there are babies. These flags will be displayed all through the week.

SECOND DAY.—BABY SUNDAY.

The program of the week should be announced from the pulpit in all churches. Physicians and members of the baby week committee may speak in the churches explaining the aims and purposes of the week. Special Sunday school celebrations similar to the "cradle roll celebrations" observed in some churches. Special feature articles in the Sunday newspapers.

THIRD DAY.—BETTER MOTHERS' DAY.

A mass meeting of mothers during which questions may be asked the mothers and a prize awarded for the best written replies. This day the mothers will visit all agencies for child welfare, such as infant welfare stations, day nurseries, children's hospitals, open-air camps, etc., all of which will have open house on that day. If this pilgrimage is made in decorated automobiles, much added publicity will be given to the week.

FOURTH DAY.—BETTER FATHERS' DAY.

Short meetings in shops and factories and other men's meetings, at which will be discussed the obligation of fathers, the social evil and all

* In this program "Baby Week" begins on Saturday and continues six days.

other subjects relative to the father and the child. The newspapers should contain special articles on fathers and children.

FIFTH DAY.—LITTLE MOTHERS' DAY—SCHOOL DAY.

Special celebrations in the schools. Essay contests among school children. Plays bearing upon child welfare. Teaching infant hygiene to school girls.

SIXTH DAY.—PERMANENT ORGANIZATION DAY.

Mass meeting to outline permanent follow-up work. Opening of a welfare station. Announcement of prizes in scoring contest.

THE NATIONAL CONFERENCE OF CHARITIES AND CORRECTIONS.

A REALIZATION of the importance of health seems to have spread through the program of the National Conference of Charities and Correction like an infection. The outline of discussions at the forty-fourth annual meeting of the organization, to be held at Pittsburgh, June 6-13, has just been issued from the permanent office at Chicago. The division on health will be under the chairmanship of Professor C. E. A. Winslow of Yale University, and the vice chairmanship of Dr. H. M. Bracken, secretary of the Minnesota State Board of Health.

The modern public health program will be featured by the chairman in his address. This idea seems to characterize also the discussions scheduled to occur at four other meetings under his direction. "What the Social Worker Has Done for Public Health" will be the topic of Homer Folks of New York, a former president of the National Conference.

The campaign against infant mortality will be brought to the attention of the conference by Miss Julia C. Lathrop of the Federal Children's Bureau, and Dr. Charles E. Terry, late health officer of Jacksonville, Fla. Professor Graham Lusk of Cornell University Medical College will speak on hygiene and economy in diet. Coordination of health activities appears prominently in the program outline. Three phases will be presented, respectively, by Franz Schneider, Jr., and Gertrude Seymour of New York, and Wilbur C. Phillips of Washington; the apportionment of the health budget, the relation between social workers and public officials and the health center plan. Another session will be devoted to public health nursing.

"The United States is the only great industrial nation without compulsory health insurance," Professor Irving Fisher has said recently. In view of this need, the National Conference has provided an entire division on the subject of social insurance for its meetings at Pittsburgh. The chairman of this series of discussions is Max Senior of Cincinnati. The program has been arranged to occur the latter part of the conference period so as to accommodate medical men who attend the meeting of the American Medical Association in New York.

THE SECTION ON MENTAL HYGIENE will convene under the chairmanship of Dr. Owen Copp of Philadelphia. His speakers include Dr. Stuart Paton of Princeton, Dr. E. E. Southard and Dr. Harry G. Solomon of Boston, Dr. C. Macfie Campbell of Johns Hopkins University, Dr. A. J. Rosanoff of New York, and Dr. E. Bosworth McCready of Pittsburgh.

In other divisions of this extensive program there will occur discussions of illegitimacy, of diagnosis of crime, of state aid to dependent mothers and of negro migration to northern cities. There will be separate meetings of groups interested in hospital social service, in social hygiene, and in antituberculosis work. It is likely also that a special housing institute will be held.

The conference at Pittsburgh will continue for one week. Thirty-five hundred delegates are expected to attend. The president is Frederic Almy, secretary of the Charity Organization Society of Buffalo. The prevention of human distress through the operation of all sorts of agencies has been adopted as the main topic of the meeting.

TUBERCULOSIS SURVEYS IN ILLINOIS.

JOINT COMMITTEE of the Illinois State Board of Health and the Illinois Tuberculosis Association has been created for the purpose of assisting counties which have availed themselves of the provisions of the County Tuberculosis Sanatorium Law and which are now preparing to establish such institutions. The joint committee consists of Dr. J. W. Pettit of Ottawa, Dr. George Thomas Palmer of Springfield, Dr. O. W. McMichael of Chicago, Dr. E. A. Gray of Chicago, Dr. John A. Robison of Chicago and Dr. C. St. Clair Drake.

This joint committee has held two meetings with the trustees appointed in the various counties for the creation of sanatoria. At the last meeting held in Chicago on Monday, April 2, the trustees of the eight counties were urged to appropriate money for the purpose of exhaustive surveys of their tuberculosis problem. It was the contention of the joint committee that no county could intelligently or wisely create its sanatorium, dispensary and nursing service without having accurately measured up the needs for such institutions.

Aside from the benefit which will come to the individual counties through this service, the results of the investigations will be of the utmost value to other communities by indicating the character of the tuberculosis problem of the average Illinois county.

The sale of Red Cross Christmas Seals for the holiday season of 1916 showed an increase throughout the entire United States of over 30 per cent. A sum of \$1,000,000.00 was raised during the season to be devoted to tuberculosis work. This makes a total of money raised through Red Cross Seals since 1908 of \$5,206,051.00. The community which does not use Red Cross Christmas Seals is a benighted and unprogressive community indeed.

HEALTH PUBLICITY.

WHEN WE CONSIDER that disease germs directly and indirectly kill twice as many people as die from accidents, diseases of wear and tear, hereditary influences and all other causes, Chicagoans should be proud of the record of the last two years, 1915 and 1916, that gives a lower death rate for a five-year period from four notorious contagious diseases that have in the past decades slaughtered so many people, namely: diphtheria, scarlet fever, typhoid and smallpox. Even deaths from tuberculosis—3,736—were less than for any year since 1911.

The fight against all the preventable diseases depends upon accurate knowledge of their causes, efficient machinery of public health administration, and publicity to teach the people how to avoid them. If people do not know what dangers threaten, how can they avoid them? How shall they know, except through publicity and education?

If people do not know, for example, that typhoid fever is largely a food and water-borne disease and that every case of typhoid is a serious menace to the whole community, until it has recovered and been found by microscopic tests to be free from typhoid germs; if people do not understand why strict isolation of such patients, efficient quarantine, is the only way to prevent its spread to healthy individuals; if people do not comprehend that real cleanliness in typhoid fever means the destruction of all the typhoid germs that are given off in the discharges of the patient; if they do not know that it is dangerous for nurses to attend typhoid patients in a hospital, or anywhere else, and at the same time care for other patients; if the poor families and those with little education can not get these and other facts, vital to the health of their own households, and therefore, vital to the community, how can public health officials get the cooperation that springs from knowledge?

The same question applies to diphtheria, scarlet fever, smallpox, tuberculosis and other contagions. In all of these diseases early diagnosis is the key to their control. Prompt report, effective isolation and efficient medical care is the rest of the story.

It is, therefore, plain enough that publicity through a wide use of printer's ink; through the cooperation of the press in all languages; through lantern slide demonstrations, lectures and moving pictures; through health exhibits, charts and mechanical devices, is of greatest importance in the education of the public. By means also of weekly and monthly and special issues of bulletins and magazines, published by the health department, and by educational campaigns during special days and weeks, appointed by the mayor and health commissioner, our citizens come to know the facts.

All such means of publicity count upon churches and schools and social centers, clubs and associations, social, commercial, educational and philanthropical, to spread the truth. This is the function of publicity and education. In other words, as Dr. Robertson, Commissioner of Health of Chicago, has repeatedly said: "Sixty per cent of the efficiency of a health department depends upon publicity and education."

How short-sighted then, the so-called economy suggestion of budget makers to abolish the health department's division of education and publicity? If this is good business, the commercial houses should cut off their advertising departments and quit trying to educate the public as to the value of their services and wares.

Justice, blinded, would be as useful as public health service gagged.

To silence the voices of hygiene and sanitation, empty its ink well and break its pen, is equivalent to sounding a retreat of the army, which guards the health of our citizens. As well, spike the guns of our armies as to silence its bugles and its drums, and tear up its banners and its flags.

There are no secrets in the medical profession. Whatever one reputable physician knows is available to every other reputable doctor in the world. Hence it has become an axiom in the medical world that every remedy which is a "secret" or made by a "secret formula" is more than likely to be a fraud.

The State of Virginia is conducting a unique rural campaign of health publicity. Recognizing that millions of dollars have been drawn from the pockets of the country people through glaring signs tacked on the trees and fences along the highways, the Virginia State Board of Health is sending men throughout the state tacking up tin lithographs of black and orange setting forth health truths in most attractive style. One of the placards reads as follows:

"The Best Farm in this country is the one on which the health of the family is best protected.

"It has a good well.

"It has a sanitary privy.

"It has screens on the windows and doors to keep out flies and mosquitoes.

"It has no standing water in which mosquitoes can breed.

"Make it yours."

Mr. Arthur Hunter, president of the Actuarial Society of America, has studied the mortuary statistics of six of the largest American life insurance companies, and as a result declares that cancer is neither hereditary nor contagious. Of 20,000 applicants whose parents had both died of cancer, but four were found to have cancer.

The United States Department of Labor is responsible for the statement that more women from 15 to 45 years of age die in the United States from conditions incident to maternity than from any other cause except tuberculosis. While the tuberculosis mortality has greatly decreased since 1900, there has been no such decrease in the maternity death rate of women.

One of the most interesting and promising health publications ever issued in Illinois, is the *Springfield Open Air Crusader*, the first number of which has just appeared. This little publication is particularly interesting because every line of the text and every cartoon is the work of a pupil in the Springfield public schools. It is something more than a journal for the education of school children. It is the intelligent effort of the school children to educate their fellows and themselves along lines of public health. It is the best evidence imaginable that the active campaign of public health education carried on by the Springfield Tuberculosis Association has taken root and is giving forth a profitable harvest.

Though the sick may desire to be well, it is often the well that has made them sick.

There should be a full-time health officer in every town in which there is a full-time fireman or a full-time policeman. And that full-time health officer should be a physician or some other man of technical sanitary training.

Curbstone medical and health advice from salt barrel philosophers and town gossips is usually worth just a little less than it costs.

The intelligence and progressiveness of a community can be measured by the efficiency of its health department.

Has your town employed a community nurse as yet? Why not?

When you are through with your spring clean-up, arrange definitely for your weekly clean-up. Get clean and keep clean.

LETTERS TO THE DEPARTMENT.

O. M. H. writes as follows: "There is a cemetery located one-half mile north of town, on a piece of land which slopes southeastward. The trustees of the cemetery contemplate digging a shallow well in the southeastern corner to supply sufficient water for flowers and sod on the graves. They expect to install a pump over the well so that the public will have access to the water for drinking purposes. Because of this and many other chances of disease in the use of the water for sprinkling purposes, I ask you to advise me what action if any the local board of health should take."

Answer.—"From your description, we would regard the location of the well as unfavorable. However, we would point out that the dangers of drainage from a cemetery are far less than the dangers of drainage from cesspools and privies. Bodies before being interred are usually embalmed which has the effect of killing practically all disease germs. Moreover, the coffins are usually of sufficient substantiality to prevent in large measure the percolation of products of decomposition through the soil. The living, not the dead, spread disease. Nevertheless, the idea of drinking water that may have percolated over dead bodies, however unlikely to create specific disease and however well purified after leaving the bodies, is seriously offensive to the esthetic sense."

L. L. L. writes: "Has your department ever made any study of the use in Illinois of chlorine for water supply disinfection?"

Answer.—"This department, generally speaking, is not in favor of sterilization either by hypochlorite or liquid chlorine as a sole means of water treat-

ment. We regard the application of these chemicals in the nature of an emergency arrangement when the water is not otherwise treated and in those cases where the water is filtered, we regard the application of these chemicals in the nature of an additional factor of safety.

"Sterilization is objectional as a sole means of treatment, primarily for the following reasons:

"(1) With a slight overdose, objectionable tastes and odors in the water are produced.

"(2) With a slight underdose, the sterilization is not sufficiently effective. Most waters in the State that are polluted, fluctuate widely and rapidly in quality, and it is difficult to vary the treatment to correspond.

"(3) Sterilization does not remove the objectionable physical characteristics such as turbidity, color, tastes and odors. This latter can only be accomplished with the assistance of chemical precipitation and filtration.

"There is no question, however, as to the efficacy of sterilization for killing disease organisms when used in sufficient quantity and it is indispensable in connection with otherwise unpurified surface water supplies and is always a valuable adjunct to the filtration process."

J. M. P. writes: "In the installation of a sewerage system for our village, it has been necessary to condemn private property outside the village limits as a site for sewage treatment works consisting of an Imhoff tank. The contention is made that the odor arising from the plant will be a damage to property values nearby. We wish to know if your department has any knowledge of the correctness or falsity of these claims."

Answer.—"We can not say that the Imhoff tank is entirely without odor. It is a fact, however, that an Imhoff tank properly designed and properly operated produces less odor than any other sewage tank yet devised. The odor is so slight that uncovered tanks have been successfully used in large units within a few hundred feet of high-grade residences. It is to be noted, however, that these tanks had excellent care, and that particular attention was given to beautifying the grounds about the tanks, in fact the grounds presented quite a park-like appearance.

"The effluent from an Imhoff tank, as you will appreciate, is a putrescible liquid, and unless there is sufficient dilution in the stream into which it discharges, it will undergo decomposition with objectionable odors. The odors from this source are likely to be more objectionable than the odors from the tank itself.

"As an extra precaution, it would be highly desirable to construct a house over the top of the tanks, so arranged that it will not prevent ready accessibility to all parts of the tank."

IN CASE OF TYPHOID EPIDEMIC.

The State Department of Health now has available an emergency outfit for sterilizing public water supplies. Upon the outbreak of a typhoid epidemic, suspected of being due to a public water supply, telegraph the State Department of Health and the apparatus and an expert to operate same will be sent out at once.

**ILLINOIS STATE BOARD OF HEALTH.
REPORT OF EXAMINATIONS FOR 1916.**

	Physicians.				Other Practitioners.				Midwives.			
	Present.	Passed.	Failed.	Incomplete.	Present.	Passed.	Failed.	Incomplete.	Present.	Passed.	Failed.	Incomplete.
January 13-15.....	69	43	23	3	101	14	85	2	32	4	27	1
May 2-3.....	166	155	12	1	166	50	115	1	65	12	53	.....
May 4-6.....	287	231	51	5	.....	.....	.....	.....	.....	.....	.....	.....
June 21-23.....	.....	.....	.....	.....	169	65	102	2	23	4	19	.....
July 20-21.....	.....	.....	.....	.....	.....	.....	.....	.....	37	4	32	1
August 30-31.....	123	88	27	8	35	2	31	2	19	4	13	2
October 10-12.....	647	517	113	17	471	131	333	7	176	28	144	4
Per cent passed.....	82%				28.2%				16.2%			

NATIONAL BOARD EXAMINATION.

THE SECOND EXAMINATION to be given by the National Board of Medical Examiners will be held in Washington, D. C., June 13, 1917. The examination will last about one week.

The following states will recognize the certificate of the National Board: Colorado, Delaware, Idaho, Iowa, Kentucky, Maryland, North Carolina, New Hampshire, North Dakota and Pennsylvania. Favorable legislation is now pending in twelve of the remaining states.

A successful applicant may enter the Reserve Corps of either the Army or Navy without further professional examination, if their examination papers are satisfactory to a Board of Examiners of these Services.

A bill has been introduced in the General Assembly providing for the regulation of housing in Illinois. The bill is said to contain the excellent provisions of the law passed in Indiana through the efforts of Mrs. Albion Fellows Bacon and adopted and improved by the state of Minnesota. Up to this time, Illinois has had no definite housing laws.

The health department of the city of Springfield will employ the services of a full time graduate nurse who will devote her attention to Infant Welfare. The Springfield Health Department has had the half time service of such a nurse for a year past. For purposes of greater economy and efficiency, the work of this nurse is supervised by the Springfield Tuberculosis Association, which is the recognized nursing organization of the community and carrying out all forms of public nursing.

It must have been the devil himself who put the "sin" in patent medicine.

The Perils of Young Atlas.



Illinois State Board of Health - Cartoon - N° 54.

The World Rests on the Shoulders of
the Coming Generations.

ILLINOIS HEALTH NEWS

"THE GREATEST WEALTH OF THE COMMONWEALTH IS HEALTH"

ILLINOIS STATE BOARD OF HEALTH OFFICIAL MONTHLY BULLETIN

[Printed by authority of the State of Illinois.]

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Vol. III, No. 4.

APRIL, 1917.

New Series

AN ENLIGHTENED CENTENNIAL.



ILLINOIS STATE BOARD OF HEALTH — CARTOON N°55.

— ILLINOIS PREPARES FOR A CELEBRATION WORTHY
OF HER HUNDRED YEARS OF PROGRESS.

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"The Medical Department of the State Government."

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For the diagnosis of diphtheria only.

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For the Treatment and Prevention of Diphtheria.

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ILLINOIS HEALTH NEWS

[Printed by authority of the State of Illinois.]

This bulletin will be sent free on request addressed to the Secretary, Illinois State Board of Health, Springfield, Illinois.

VOL. III, No. 4.

APRIL, 1917.

NEW SERIES.

The New State Department of Public Health.

[By C. ST. CLAIR DRAKE, M.D., Secretary and Executive Officer of the
Illinois State Board of Health.]

WITHIN THE PAST TEN YEARS, there has been a broad expansion in the activities of the Illinois State Board of Health—larger quarters, better facilities, and increasing numbers of employees. During the same decade, the records of the General Assembly have shown greatly increased appropriations to the State Board of Health. From external appearance, one would conclude that State health administration in Illinois has moved ahead in a most gratifying manner and that funds have been bountifully provided.

But both expansion and increased appropriations have been misleading. While public health work has unquestionably progressed, it must be borne in mind that the presumably secondary function of the board—the examination and licensure of physicians, midwives and other practitioners—has grown with even greater strides until, finally, it has come to require 75 per cent of the time and attention of the members, officers and the employees of the board.

Likewise, the very decided increase in appropriations for the State Board of Health made by the Forty-seventh General Assembly, in 1911, and continued and increased since that time, has had little or nothing to do with public health administration. The appropriation act of 1911 merely marked the end of the old days when the fees collected in the examination and licensure of physicians and others could be used by the board for the expenses of examinations and for other purposes. It marked the day when all fees must be paid into the State treasury and all funds must be paid out by appropriation. In fact, the increased State Board of Health appropriations of 1911 amounted to little more than a new and better method of State bookkeeping. It meant practically no increase in actual money available for health purposes.

¹ Presented before the Illinois Public Health and Welfare Association, Springfield, April 12 and 13, 1917.

So, in the past, the activities of the State Board of Health have been confused in the public mind and the public health and sanitary work has been hampered and embarrassed by the ever increasing demands of registration and licensure.

EARLY IN 1915, when the State Economy and Efficiency Committee was considering plans for the combinations and coordination of the various State departments and bureaus for the purpose of better and more economical administration, the State Board of Health submitted a plan for the coordination of governmental agencies having to do with the public health. In view of the sentiment existing even at that recent date, it seemed necessary for the State Health Department to continue to carry the burden of the enforcement of the Medical Practice Act and, on that account, the board recommended the organization of the department into two divisions—one for health and the other of licensure—with the provision that they should be as far separated as possible and still exist in a single department. It was also believed at that time, that it would be necessary to include in the State Department of Health those bureaus and departments indirectly connected with health, such as pharmacy, food, nurses, dental and other existing boards.

In Governor Lowden's consolidation act, which has made economy and efficiency coordination a fact in Illinois, that section of the law having to do with the creation of a Department of Health has been drawn upon lines indicating a very lively appreciation of the protection of the lives of the health of the people and the newly-created department finds itself in a singularly fortunate position—freed of all embarrassing burdens—a Department of Health pure and simple.

Under this new law, which becomes effective on July 1 of this year, the examination and licensure of physicians, of midwives, of other practitioners and of embalmers are relegated to the newly-created Department of Registration and Education and no other bureaus or departments have been added to the Health Department. The department is charged solely with the protection of the lives and the health of the people, although this is elaborated in such a way as to give the department much greater and more specific power than it had under the old State Board of Health Act. There now remains no reason why the health administration of Illinois should not give an account of itself which will be entirely acceptable and satisfactory to the people of the State.

With the slate wiped clean; with every opportunity that could be reasonably expected for constructive activity, interest naturally turns to the first steps that are to be taken and these first steps must be in the construction of the machinery which will efficiently yet economically meet the needs of the third greatest state of the Union.

It is for the purpose of submitting to this association the *tentative* plans for the health organization of the State under the new law, that I am here to-night. Incidentally, it must be borne in mind that this is the first time that this organization has been publicly discussed and it is more than likely that it will have to meet with considerable revision and modification before it is finally entirely acceptable. Even

when the plan is formulated in the manner which seems wisest and best, it will have to be subjected to the limitations which will be placed upon it by the General Assembly in providing appropriations.

BEFORE REVIEWING the character and functions of the various bureaus contemplated in the program of the new State Health Department, I want to say a few words in regard to general organization. Within the past few years several features have been inaugurated which have added materially to the efficiency of the old State Board of Health and it is not the purpose in this present reorganization to abandon these excellent provisions. On the contrary they will be elaborated and developed.

In a general way the State Department of Health will broaden its policy of cooperation with the health officers, the physicians and the extra-governmental agencies of the State. More than ever before the department will strive to be helpful rather than regulatory. In every possible way an endeavor will be made to extend the opinions of the department into every county and city, town and community in Illinois.

This spirit of helpfulness worked out with such brilliant results in the clinics and meetings on poliomyelitis held in conjunction with the health authorities and the medical societies of the State will find expression in other lines such as tuberculosis, child welfare and so on.

The distinct step forward of the past few years has been the division of the State into health or sanitary districts, placing each under the supervision of a full-time medical health officer. This policy will be continued and extended until eventually the State Department of Health will have a competent full-time representative for at least each 100,000 people of the State, exclusive of the city of Chicago and, pursuing the policy of the past few years, there will be established a branch laboratory in each health or sanitary district convenient for the use of the district health officer and the physicians and people of that community.

The district health officer system of Illinois was necessarily established modestly. Four sanitary districts were made possible by the appropriations of the Forty-ninth General Assembly and by assigning an additional district to the State Epidemiologist, five such districts were created. It is our purpose this year to ask for the means of creating 10 sanitary districts, and these will be increased in number from session to session as they demonstrate their efficiency and desirability as I have not the slightest doubt they will. It will be understood that the plan I present to you to-night will have as its foundation the district health officer organization of the State.

TO PLACE THIS PLAN BEFORE YOU the more clearly, it is wise to review very briefly the duties imposed upon the department in the consolidation law, or, as it is correctly termed, "The Civil Administrative Code." Under this law, the Department of Health is made one of the nine chief divisions of the State Government and the Director of Public Health is made virtually a member of the Governor's cabinet.

The Department of Public Health is charged, first, with all of the duties imposed under the old law upon the State Board of Health except the functions of regulating the practice of medicine and the practice of embalming. In addition to this blanket provision, the department is charged with:

The supervision of the interests of the lives and health of the people;

Advisory service in matters of water supplies, water purification works, sewerage systems, and sewerage treatment works with control over nuisances created in the operation of such works;

The making of sanitary investigations; and the investigation of nuisances;

The maintenance of chemical, bacteriological and biological laboratories and the examination of milk, sewage, wastes and other substances and to make the diagnoses of communicable diseases;

The distribution without charge of preventive and curative vaccines, sera and other like agents;

The registration of vital statistics;

The investigation of the prevalence of disease and taking steps to limit the spread of disease;

Keeping informed of the work of local health officers and agencies in the State; and directing and assisting local authorities in the enforcement of health laws;

Keeping the public fully informed relative to the public health and the prevention of disease;

The enlistment of extra-governmental agencies and physicians in public health improvement;

The investigation of public institutions and schools;

The investigation and inspection of public hospitals, sanatoria and other public institutions;

Printing and publishing all necessary documents necessary in efficient public health administration.

To those who have been conversant with the powers and limitations imposed upon the State Board of Health in the past, it is apparent that the authority and the duties of the State Health Department are enormously increased under this law.

To perform the duties thus imposed, the law provides that the department shall be under the supervision of the Director of Public Health and that there shall be a Board of Public Health Advisors, consisting of five persons to be appointed by the Governor. This board of advisors is authorized to study the needs of the department and to make suggestions, either at the request of the director or upon their own initiative, which suggestions must be given consideration. Such suggestions for the good of the department may be made to the Governor or to the General Assembly, either with or without invitation. This board of advisors is also authorized to investigate the conduct of the department at any time and to adopt rules, not inconsistent with the law, outlining the general policies of the department.

The law also prescribes the office of assistant director of the department. The director and the assistant director are appointed by the Governor.

WITH THIS FOUNDATION, specifically created by the law, the duty which lies before us is to create the additional machinery necessary to make this excellent law effective. To accomplish this end it is proposed to create within the department ten bureaus, all more or less independent for the development of individual initiative and yet all closely coordinated for purposes of team work, of efficiency and economy. Each of these bureaus will have its own chief, to be selected through civil service competitive test.

The bureaus proposed in this plan are:

The Executive Bureau which is, in reality, the director's office and the general executive bureau of the department;

The Bureau of Communicable Diseases;

The Bureau of Tuberculosis;

The Bureau of Child Hygiene and Public Health Nursing;

The Bureau of Diagnostic Laboratories;

The Bureau of Sanitary Engineering;

The Bureau of Surveys and Rural Hygiene;

The Bureau of Hotel and Lodging House Inspection;

The Bureau of Vital Statistics;

The Bureau of Public Health Instruction.

1. THE EXECUTIVE BUREAU will have general supervision and direction over all bureaus; will have to do with the making of contracts and the purchase of supplies; will have charge of accounting, pay rolls, budgets, efficiency records; will have charge of correspondence and the central files of correspondence of all bureaus. This bureau will have charge of all legislation affecting the department of matters of public health; will draft model ordinances and will prepare and promulgate all rules and regulations of the department. It will conduct all prosecutions for violations of law.

2. THE BUREAU OF COMMUNICABLE DISEASES will have general charge of the prevention and control of communicable disease throughout the State and will exercise general supervision over all health officers, promoting close cooperation between local health officers and the department.

This bureau will enforce rules of quarantine and special rules made in times of emergency; will render epidemiological service and will make diagnoses in difficult or disputed cases. It will disseminate information and advice relative to the prevention of communicable disease and will have charge of the distribution of free vaccines, sera and other agencies for the prevention and cure of disease, employing for this purpose at least 300 agencies scattered throughout the State. It will furnish preventive treatment for all indigent persons bitten by rabid animals.

3. THE BUREAU OF TUBERCULOSIS will have to do with the control and prevention of tuberculosis and will enforce rules and regulations formulated for this purpose. It will have charge of anti-tuberculosis education; will conduct tuberculosis surveys of counties and municipalities and will promote campaigns for the establishment of municipal or county sanatoria with dispensaries and nursing service. It will assist communities in developing plans for sanatoria and dispensaries and will pass upon all plans for county tuberculosis sanatoria as provided by the Glackin Law. It will undertake the investigation and inspection of public tuberculosis hospitals, sanatoria and other institutions dealing with the tuberculous and will recommend methods of operation. This bureau will cooperate closely with the Illinois Tuberculosis Association and with the various local tuberculosis organizations.

4. THE BUREAU OF CHILD HYGIENE AND PUBLIC HEALTH NURSING will combat the high mortality among children by promoting child-hygiene service in the various communities throughout the State, establishing infant welfare stations and visiting nurse service. It will promote medical inspection of school children and will disseminate information and advice on the care of children and investigate local conditions affecting child life. The bureau will have general supervision of the nursing service maintained by communities and by extra-governmental agencies and will investigate orphanages, homes and hospitals for children. It will assist in the management of baby health conferences, baby week programs, etc., and will supervise the practice of midwives with special reference to the prevention of blindness from infection of the eyes of the newborn, in the latter service cooperating closely with the Illinois Society for the Prevention of Blindness.

5. THE BUREAU OF DIAGNOSTIC LABORATORIES will render free laboratory service for physicians, health officers and the public generally in the diagnosis of diphtheria, typhoid fever, paratyphoid, tuberculosis, malaria, venereal disease, meningitis, rabies, cancer and other diseases. It will maintain branch laboratories in each of the several State health districts for the diagnosis of diphtheria, typhoid fever and other diseases, and will have charge of the distribution of culture shipping outfits through 300 distributing agencies scattered over the State. The bureau, with its improved and increased equipment will be enabled to engage in research work of all kinds which may bear upon the public health.

6. THE BUREAU OF SANITARY ENGINEERING will render an investigating, advisory and supervisory service with special reference to health problems which lend themselves to engineering treatment including public water supplies, water purification works, sewerage and sewage treatment, garbage and waste disposal methods, street cleaning, drainage, sanitation of common carriers, plumbing and plumbing regulation

and industrial hygiene. It will examine all plans of public sanitary projects, thus affording protection against inefficient sanitary installations and preventing the waste of public funds. The bureau will have to do with the protection of public waterways; with sanitation of school buildings, State institutions, work camps, summer resorts, chautauquas, etc., and will encourage the promotion of drainage projects and mosquito extermination campaigns. The bureau will conduct engineering laboratories for the examination of water, sewage and other wastes and materials having to do with its activities.

7. THE BUREAU OF SURVEYS AND RURAL HYGIENE will engage in investigations to determine rural and urban community sanitary deficiencies and the promotion of plans for betterment. It will conduct sanitary surveys and investigations of dairies, farms and rural schools. It will carry out a campaign of education relative to the sanitation of rural homes, farm buildings, schools, etc.

8. THE BUREAU OF HOTEL AND LODGING HOUSE INSPECTION will work toward the maintenance of proper sanitary conditions in hotels and boarding houses by enforcement of rules and regulations relating to overcrowding, ventilation, drainage, cleanliness and general sanitary conditions.

9. THE BUREAU OF VITAL STATISTICS will enforce the provisions of the excellent Birth and Death Registration Act which is now in force in Illinois. The bureau will collect and permanently register the birth, stillbirth and death reports from the 2,500 local registrars throughout the State. As a means for encouraging more complete registration of birth a certificate of birth together with a booklet on the care of the baby will be sent to every mother in the State. Aside from the registration of births and deaths, this bureau will have charge of the tabulation of morbidity and all other statistics required by any other bureau of the department. The bureau will distribute all blanks, certificates and other forms necessary to the enforcement of the Birth and Death Registration law and will certify annually to county clerks the fees due to local registrars.

10. THE BUREAU OF PUBLIC HEALTH INSTRUCTION will have charge of the publication and distribution of all material necessary to a popular campaign of education in matters of public health. It will publish the monthly journal of the department—ILLINOIS HEALTH NEWS—and special pamphlets and booklets covering all health subjects. It will furnish a weekly press service on health matters to all newspapers throughout the State and will have charge of the exhibits, models and other educational matter used for popular education, including motion pictures, stereopticon slides, etc. This bureau will conduct a lecture service in which the various bureau chiefs will be employed so far as their other duties will permit and will prepare and loan lectures on various health subjects for the use of health officers, physicians, churches, clubs, schools and public organizations. The bureau will also have charge of

a circulating public health library for the use of health officers and public officials.

PUT AS CONCRETELY AS POSSIBLE, the working force of the State Department of Public Health after July 1 of this year will consist of a director in charge of a department free to develop all of its energy to the interests of the lives and health of the people of the State, this director assisted in his duties by an assistant director and advised and counseled by a competent advisory board. Throughout the State the department will make its opinions felt through the organization of at least ten, full-time medical health officers, each assigned to a definite sanitary district to constitute a mobile force which can be brought together in any section of the State during a time of emergency.

The work of this corp of district health officers will be rendered far more efficient through the organization at Springfield of ten major bureaus of the department covering the entire field of sanitation, disease prevention and health promotion, and each of these bureaus under the supervision of a man who is an expert in his particular line of endeavor.

The services of any or all of the bureau heads may be requisitioned by any district health officer to meet the special problems of his community and for the purpose of conducting Health Officers' Schools which will be one of the very important duties of the district health officers and the combined energies of these bureaus will be brought together in outlining and developing general constructive health activity.

Such a general organization as I have outlined could engage to advantage in the preparation of model ordinances affecting the public health and in creating the sentiment which would secure their enactment, and such an organization working through the district health officer could do much toward securing adequate pay for adequate services among local health officials of the State and in creating sentiment for the employment of full-time health officers in the various communities.

THERE IS A BILL NOW PENDING in the General Assembly authorizing the consolidation of municipalities, townships or counties for the employment of full time medical health officers, who are to be selected by competitive test. If this law is passed and the organization of the State Health Department can be carried out along the lines I have suggested, I believe that I can prophesy an era of important awakening in public health administration in Illinois which will be felt, not in a vague and indefinite way, but in a direct and tangible way by every county, city and community in the State.

It is a regrettable thing that the problems and difficulties which the war with Germany is bound to bring, may necessitate radical changes in the splendid plans for the celebration for the Illinois Centennial. If it seems wise to abandon the beautifying of our cities and the developing of our State resources and instead, to spend 1918 in mobilizing and training our forces for protection, Illinois may be depended on to do her full duty.

Public Health Meeting Great Success.

First Annual Meeting of Illinois Public Health and Welfare Association.

THE ILLINOIS Public Health and Welfare Association is an established institution. The meeting at Springfield, Thursday and Friday, April 12 and 13, was declared to be one of the most successful public health meetings ever held in the Middle West. From the hour of opening on Thursday morning until the hour of closing on Friday night, the attendance was good and the interest was keen. There was but one criticism of the program and of the meeting. It was agreed that there was not enough time for discussion. Everybody seemed to want to talk and the very full program was kept on schedule only by the vigorous use of the president's gavel. Practically every member was present through the whole program. The community nurse listened attentively to the discussion of sewage disposal by the sanitary engineer; the health officer heard with interest a paper on health and charity; the enthusiast on milk production was enlightened on the prevention of cancer; the infant welfare worker acquired new light on problems of housing. It was a round-up of health officers, physicians, nurses, social workers, sanitarians and public officials with a group of experts whose names are known in their particular field in all parts of the Nation.

"With all the organizations in the State," one delegate declared, "this meeting duplicates nothing. It is a clearing house—the one place where we may get a bird's-eye view of public health and medical-social ideals and activity."

A QUESTION which seemed to interest the members greatly and which was a subject for discussion throughout the entire meeting was that introduced by Dr. George Thomas Palmer in his presidential address; the relationship of the war to the tuberculosis problem. Dr. Palmer called attention to the fact that tuberculosis has become so prevalent among the troops returning from the front in the various European nations that it has become a war problem of first magnitude and he prophesied similar conditions in the United States in the event of active warfare unless something is done to prevent it. Dr. Palmer's address, which is given elsewhere in these pages, led to the adoption of the following resolution on the last day of the meeting:

"WHEREAS, The prevalence of tuberculosis in active form among the troops returning from the front is proving a serious problem to the warring nations in Europe, and

"WHEREAS, War with its attendant strain and hardships tends to arouse latent infection into acute disease, and

"WHEREAS, The present war will find Illinois without adequate sanatorium facilities for normal times and wholly unprepared for a great increase in tuberculosis, therefore be it

"Resolved, That the Illinois Public Health and Welfare Association hereby recommend that all possible steps be taken to prevent the development of tuberculosis among Illinois troops by more rigid examination by physicians during recruiting, the best sanitary camp condition, and preparation for adequately meeting the tuberculosis problem of the State by speeding the construction of the public sanatoria already provided for by law and the encouragement of other similar institutions."

PERHAPS the greatest interest in the entire meeting centered upon the address given on Thursday evening at the annual banquet by Dr. C. St. Clair Drake, secretary and executive officer of the present State Board of Health and appointed by Governor Lowden as director of the newly created State Department of Public Health. This address was particularly interesting and important since it outlined for the first time the plan of reorganization and operation of the new health department. Dr. Drake's address is published in this number of HEALTH NEWS.

THE MORNING SESSION on Thursday was devoted to addresses by representatives of the various departments of the State Board of Health, a special effort being made to advise the members of the association of the service which the board is prepared to render to the public. These addresses were marked by optimistic forecast of what they would be permitted to accomplish under the new health organization. On this program were: Dr. E. S. Godfrey, on epidemiological work; Orrin Dilley, on vital statistics; Paul Hansen, on sanitary engineering; Paul Skoog, on rural sanitation and surveys; E. A. Hardt, on legal phases of health work, and Dr. George E. Sorgatz, on diagnostic laboratories.

PREVENTION OF BLINDNESS was the first subject discussed at the afternoon session and so much interest was created by Miss Carolyn C. Van Blarcom in presenting her subject that a committee on prevention of blindness was created for the city of Springfield on the second day of the meeting.

The reorganization and administration of municipal health departments was discussed by Dr. Gustav Ruediger, who has done interesting and constructive work in the health department of the tri-cities—La Salle, Peru and Oglesby.

Dr. C. W. East, of the State Board of Health, spoke on infantile paralysis, outlining the splendid work he has done in clinical and popular education throughout the State in cooperation with municipal health departments and county medical societies.

An address on the sanitary aspects of the milk supply by Dr. H. A. Harding, of the University of Illinois, brought forth animated discussion.

THERE WAS LITTLE or no time for social diversions. An automobile drive took the members to places of historic interest; but included the new waterworks where Commissioner Willis J. Spaulding has solved the knotty problem of a pure water supply for Springfield and to the Springfield Open Air Colony, the pioneer sanatorium

for the tuberculous in Central Illinois for those of moderate means. Even the annual banquet, which approached festivity as nearly as any event of the session, was the occasion for a number of excellent speeches on public health subjects.

FOLLOWING THE BANQUET, five-minute talks were given by the following men prominent in the public health, medical and social activities of Springfield: Senator Logan Hay, Robert C. Lanphier, Dr. E. E. Hagler, Dr. O. H. Deichmann, Hugh S. Magill, Jr., Dr. L. C. Taylor and Burt H. Peck.

The evening program was made up of addresses by Dr. W. A. Evans, of Chicago; Dr. John Dill Robertson, of Chicago, and Dr. C. St. Clair Drake.

Something over a hundred persons attended the banquet and remained through the evening program.

SANITARY ENGINEERING occupied the larger part of the program Friday morning with excellent papers on sewage treatment, collection and disposal of city wastes and purification and protection of water supplies. The speakers included Edward Bartow and J. F. Schnellbach, of the University of Illinois; S. A. Greeley, of Chicago; Langdon Pearce, of Chicago; William T. Barnes, of Chicago, and G. O. Habermeyer of the University of Illinois.

Surgeon M. J. White, of the United States Public Health Service, spoke on rural sanitation, and Francis Willard Puckey, of Chicago, on designing tuberculosis hospitals.

AT AN INFORMAL noonday luncheon on Friday, W. D. Thurber, executive secretary of the Illinois Tuberculosis Association, spoke informally on the work of that organization. It was at this luncheon that Dr. Palmer sprang his new State hymn to be sung to the tune of "Illinois," which struck a responsive chord with the members.

THE LAST SESSION afforded a program as interesting as it was varied. According to one of the members it was "a Cook's tour through the high spots of medical-social experience." It afforded an opportunity for persons with widely varying interests in public service to become conversant with the aims and purposes and methods of those engaged in other lines of work.

The papers dwelt with community work, the relationship of charities to public health, review of the housing conditions in Illinois, the Springfield Survey, the control of cancer, community and public health nursing and the health crusader movement in the public schools. The speakers were Professor R. E. Hieronymous, of the University of Illinois; A. L. Bowen, of the State Charities Commission; Professor J. H. Tufts, of the University of Chicago; Robert C. Lanphier, of Springfield; Dr. Fred J. Taussig, of St. Louis; Miss Harriet Fulmer, of Chicago, and Miss Maude Humphrey, of the Springfield Tuberculosis Association.

THE EXCELLENT PAPERS presented at this meeting will be published from time to time in HEALTH NEWS and will afford when completed, a notable collection of articles touching almost every phase of public health and medical-social work.

AT THE BUSINESS MEETING held on Friday afternoon the following committees reported action:

Committee on Resolutions—Francis W. Puckey, Chicago; Miss Carolyn C. Van Blarcom, Chicago; Dr. Edward J. Higgins, Joliet; Dr. Seward L. Landauer, of Danville, and Dr. H. Nelson Heflin, of Kewanee.

Finance Committee—W. D. Thurber of Chicago; Miss Anna L. Tittman of Springfield; Dr. Harry Bennett of Litchfield.

Nominating Committee—Paul L. Skoog, Springfield; Miss Harriet Fulmer, Chicago; Dr. Rufus J. Coultas, Mattoon; Dr. Henry Bixby Hemenway, Evanston, and Samuel A. Greely of Chicago.

The nominating committee, according to the custom of the association, will prepare a ticket of new officers prior to November 1, and the election will be held by mail.

The present officers of the association are: Dr. George Thomas Palmer, Springfield, president; Dr. John A. Robinson, Chicago, honorary president; W. J. Allen, Waukegan, first vice president; Dr. W. C. Clarke, Cairo, second vice president; Dr. G. F. Ruediger, LaSalle, third vice president; and Mr. Paul Hansen, Springfield, secretary-treasurer.

THE NEW STATE HYMN.

[To be used when we take the "Ill" out of Illinois.]

By thy rivers, sanitary, Wellinois, Wellinois,
O'er thy prairies cleanly very, Wellinois, Wellinois,
Comes an echo on the breeze,
With the fresh air through the trees,
And its mellow tones are these, Wellinois, Wellinois,
And its mellow tones are these, Wellinois.

Pride of all thy sons and daughters, Wellinois, Wellinois,
You have cleansed your inland waters, Wellinois, Wellinois,
Fair Chicago great and grand,
Has no typhoid on her hand,
Offers health to every land, Wellinois, Wellinois,
Offers health to every land, Wellinois.

Thou didst hear thy people calling, Wellinois, Wellinois,
'Mid disease and death appalling, Wellinois, Wellinois,
Then thy courage and thy will
Rose to down each needless ill,
Clean and healthful thou art still, Wellinois, Wellinois,
Clean and healthful art thou still, Wellinois.

PUBLIC HEALTH IN ILLINOIS AT THE BEGINNING OF A NEW CENTURY.

Address of the President at the First Annual Meeting of the Illinois Public Health and Welfare Association.

[By GEORGE THOMAS PALMER, M.D., Springfield.]

IN CALLING THIS MEETING to order, I feel that I am privileged to participate in an act of the utmost importance in the history of Illinois; the bringing together for the first time of all the medical, sanitary, public health and medical-social agencies of the State—both governmental and extra-governmental—in one concrete, working organization.

The Illinois Public Health and Welfare Association is not the idea of one man or of one group of men. Such an organization was inevitable. Its existence has been prophesied and foretold in a score of ways and from a score of sources during the past few years. It is the natural outgrowth of the public health and social development of the State during the past generation. The actual birth of the organization during a meeting of the Better Community Conference at Urbana last fall was quite spontaneous—the result of the accidental coming together of a group of men from all parts of the State who saw the need for the organization and who believed that the best way to begin is to begin.

When that little group determined upon the creation of this association, it seemed to them that the time was particularly auspicious. Could they have looked forward to the conditions which would surround us at the time of the first annual meeting, they would have felt that their steps were guided by some wise and fortunate destiny.

Who could have told them that, before the time for this meeting, the public health history of Illinois would be pushed forward a quarter of a century by the wise and progressive legislation fostered by a far-seeing Governor, then uninaugurated? Who could have anticipated the complex health and social problems which now surround us on account of our participation in the great World War? Public health history in the State has been making itself apace within the past few years; but the past six weeks has been the most significant period of time, from our point of view, that Illinois has experienced in her hundred years of statehood.

THE ILLINOIS PUBLIC HEALTH and Welfare Association, has come into being during the last hours of the State's first century; at the moment which seems to be the ending of the old order of things and the beginning of the new.

Within the past few weeks, a bill has passed the General Assembly whereby the State has, for the first time a real health department. The old State Board of Health, three-fourths of whose time was devoted to the examination and licensure of physicians, other practitioners, mid-

wives and embalmers, is now practically a thing of the past. On July 1, there will come into being the State Department of Public Health, unembarrassed and untrameled by such things as the enforcement of the Medical Practice Act and under the supervision of a Director of Public Health who will be a member of the Governor's cabinet. The Health Department—a health department pure and simple—becomes one of the nine major divisions of the State Government. In this progressive step, Illinois has gone ahead of the present plan of the National Government.

There was a day, within the recollection of most of us, when it was regarded quite beneath the dignity of governmental health agencies to cooperate with or to defer to volunteer or extra-governmental health organizations. That attitude was done away with by the wisdom of the present secretary of the State Board of Health, who, I am glad to say, has been appointed director of the newly-created Department of Health. But, in the future, this cooperation with private organizations will not be subject to the broad-mindedness of any public official. The spirit of cooperation is specifically written into the law—a recognized factor in sound government.

The future plans of the new Department of Public Health will be unfolded to us for the first time to-day. What the health administration of Illinois is to be during the early years of the new century is to be communicated first to this association—another incident of more than ordinary interest which will mark this first meeting.

BUT SCARCELY had the Consolidation Act been approved by the Governor—scarcely had the first plans of the new Department of Health been considered—when Illinois found herself confronted by other conditions which will have a tremendous effect upon the public health and health administration. We have finally engaged in the great World War. The young men of Illinois are already being mobilized to go out and face the hazards and the dangers of military service.

In the Spanish-American War, house flies killed more than bullets; typhoid fever was more destructive than shrapnel. Sanitary unpreparedness was more disastrous than military unpreparedness. With this experience still fresh in our memory—with widows and orphans still with us to testify to the tragic truth, we feel that there is a big job ahead for the men and women represented in this organization—physicians, public health nurses, sanitarians, social workers and engineers.

While we are speeding up the munition plants and shipyards for national defence, we should likewise be speeding up our equally necessary health armament.

The surgical military service is the spectacular and romantic part of the medical work of war—the healing of the wounded and the comforting of the dying. That service which unsentimentally guards the water supply, watches sewers, polices latrines, exterminates flies and burns manure and refuse foregoes the glory of war; but saves human life and furnishes the backbone of the fighting lines.

THE RECENT EXPERIENCE on the Mexican border leads us to believe that the Nation has learned at least one important lesson from its experience in the Spanish-American War. The morbidity and mortality from typhoid fever has become almost negligible.

But, with the beginning of our participation in this war another menace looms big and formidable before us. Europe is feeling the sting of this scourge and is beginning to struggle against it. The United States, so far as I know, has given it little consideration as a war problem. That menace is tuberculosis.

Dr. Herman Biggs, who has just returned from an investigation of tuberculosis in France, is said to report that 40 per cent of the soldiers returning incapacitated from the front are suffering from active tuberculosis—that a great part of the military disability of the European nations is due to this disease.

THE CAUSE of this is obvious to anyone conversant with modern doctrine of tuberculosis. Dormant tuberculous infection is very common even among apparently healthy individuals and this dormant infection is fanned into active disease by the physical and mental strain, by the exhaustion and exposure and privations of camp and trench life.

The significance of the European situation,—which may readily be our situation during the next few years—is appalling.

The wounded and maimed are disposed of, as a rule, within a few weeks or months. Those who are able, return to the front. Others are discharged into industries to which they may be fitted. The more hopelessly crippled are sent to their homes or asylums. The vast army of the tuberculous, remain a charge upon the nation's medical resources abroad, strained by the demands of war. If scattered throughout the nation, they implant the seed of the whirlwind which will complicate and render infinitely more difficult the days of reconstruction.

These men, disabled by tuberculosis, do not return to duty. When tuberculosis has progressed to the place where it causes actual physical disability, it is usually far-advanced and incurable.

AND THE PITIFUL THING is that much of this shocking morbidity and mortality could have been prevented just as this Nation can prevent it if it will. A closer watch in recruiting will at least prevent the enlistment of men already actively tuberculous. A closer watch on the men in service will result in the detection of the disease before it becomes advanced and incurable and will make possible the discharge of the tuberculous while they still have a chance of recovery.

Since the diagnosis of early tuberculosis is one of the most difficult things in the entire field of medicine and since tuberculosis constitutes a distinct medical specialty, such a program will require the services of internists of special skill who could render splendid service in this important line although they would probably be as unsuited to the pursuit of military surgery as the competent military surgeon would be in the detection of early tuberculosis.

IF WE ARE to have war and if tuberculosis constitutes the war problem that we now regard it, we must make amends for our former reluctance to provide for our tuberculous people. Provisions for sanatorium care of the tuberculous are less adequate in Illinois than in any other important State. There are not enough beds available to meet our needs under ordinary conditions. With the return of our troops with their large percentage of consumptives, we will find ourselves pitifully unprepared to give them humane care.

At the last general election—as another signal event in the last days of the State's first century—eight counties voted to establish public tuberculous sanatoria. In the ordinary course of events, these can not be ready for use for several years. In my opinion, it would be the part of wisdom to appeal to the Attorney General and, if necessary, to the General Assembly to see if the means can not be devised to anticipate funds already voted or to otherwise hasten the erection of these much needed institutions.

IN CONGRATULATING YOU on the successful beginning of this first annual meeting of your association, I want to again remark the appropriateness of the beginning of this organization's activity at such a significant moment in the history of the State—the beginning of a new century whose events in the field of public health are already foreshadowed.

THE CUMBERLAND COUNTY SURVEY.

Extracts from the Report on the Sanitary Survey of Cumberland County Made by the United States Public Health Service and the Illinois State Board of Health.

THROUGH THE COURTESY of Surgeon, L. L. Lumsden, of the United States Public Health Service, we are permitted to present at this time some of the more important and interesting developments in the survey of Cumberland County, made during the past year by representatives of the Public Health Service and the State Board of Health.

The aims and purposes and the general plan of this survey were outlined in these pages during the autumn (see *HEALTH NEWS*, September, 1916, p. 193) at the time the work was in progress. The survey was undertaken to obtain accurate and detailed information on the status of sanitation in a typical rural area and to bring about sanitary reformation in the county to serve as an object lesson to other rural districts.

THE SANITARY SURVEY of Cumberland County, Illinois, was begun August 7, 1916, and completed December 4, 1916. During the course of the survey the following number of homes, schools, churches

and other public buildings were inspected: Private homes, 3,298; schools, 77; churches, 58; stores and offices, 152; railway stations, 8; post offices, 8.

During the survey, 7,835 pamphlets and circulars on public health subjects were distributed throughout the county, including bulletins and circulars of the United States Public Health Service on malaria, pellagra, the care of the baby, etc., and of the State Board of Health on excreta disposal, water supplies and typhoid fever.

Fifty-three public lectures were given during the survey by members of the survey staff, made up of Assistant Surgeon K. E. Miller, Assistant Surgeon W. C. Witte, Epidemiologist C. C. Applewhite, Field Investigators M. V. Ziegler, R. H. Collins, M. F. Haralson, K. R. Glennan and Samuel Saunders. Paul L. Skoog and George S. Bote served as representatives of the State Board of Health, Mr. Bote being taken over into the service of the Public Health Service on November 8, 1916, and serving with that organization until December 4.

Cumberland County is located in the south-central section of Illinois, at the southern edge of the corn or black soil belt, it is bounded on the north by Coles County, on the west by Effingham and Shelby Counties, on the south by Effingham and Jasper Counties, and on the east by Clark County.

The topography of the county is generally rolling, and several valleys are cut through it by creeks which empty into the Embarras River. The course of the Embarras River runs across the eastern section of the county from north to south. This river is usually quite shallow and slow running, but at times, especially during the spring rains, it overflows its banks and floods a section about one-half mile wide along its course.

The soil formation of the county is black loam, sandy loam and in some sections sand and clay. The water-bearing layer is mostly sandstone and is located near the surface, in most places being only about 20 to 30 feet below the surface. It yields an abundant supply even in the dry season. The water has a very high mineral content, containing a high percentage of chlorides, which makes it very hard and unsatisfactory for laundry purposes. Cistern water is used to a great extent in the county for laundry purposes. Located about 200 feet below the surface is a water-bearing strata, containing an abundance of a salty mineral water; there are two artesian wells in the county that reach this layer; they are both located in Greenup Township.

The business interests throughout the county are agricultural and the main crops are hay, broom corn, and Indian corn. Poultry and eggs are shipped to middle-western markets, and some to the eastern markets. Cream is shipped to other counties in the State and there made into butter, which is shipped to middle-western markets. Very little truck farming is done, however; tomatoes and potatoes are sometimes shipped to adjacent towns. In the north-eastern section of the county are located several oil wells in an area of about two square miles.

THE POPULATION of the county is about 14,000, all of them being American-born, except for one settlement of Germans in Spring Point Township. They are all of the white race. A majority of the farmers own their homes and keep them in fairly good condition. Most of the citizens belong to the various denominations of the Protestant church. However, there is one settlement of Catholics in the German section.

The roads of the county are laid out along the section lines and are at right angles to each other, there being very few diagonal roads. They are in very poor condition; the only improvement ever made is grading. In dry weather they are very dusty and rough, and during the rainy season they become impassable. This year the road commissioner is making an effort to repair some of the old dilapidated bridges, and build good concrete ones in their places.

The county government is administered by a board of supervisors, one elected from each township. The supervisor acts as health officer for the township, and cares for the township's poor as well as his other duties. The pauper medical work is done by contract, physicians are appointed by the board of supervisors, one to care for medical cases and one to care for surgical cases. There is a county poor farm caring for about 25 inmates.

THE HEALTH ORGANIZATION of the county is as above stated, and in the villages there are appointed health committees consisting of members of the village board. Until 1915 communicable diseases were not reported, nor were births or deaths registered.

The county is divided into eight townships, and there are in the county four incorporated villages and eleven thickly settled communities not incorporated.

TOLEDO.

TOLEDO, the county seat, is a village of about 1,000 people located in Sumpter Township in the central portion of the county. There are in this village about 215 occupied dwellings, and a business district located about the village square and courthouse containing about 25 stores. Transportation facilities are furnished by the Mattoon-Evansville branch of the Illinois Central Railroad.

The topography of Toledo is generally flat; the streets are unpaved, however in the business district they have been oiled and are kept in fairly good condition. They are well lighted by electricity furnished from the plant owned by the village. Cement sidewalks extend to nearly all of the residences within the corporation. The business interests of Toledo, as well as of the other incorporated villages of the county, are agricultural. The villages act as shipping points from which the products of the county are shipped. The local government consists of a village president and a board of six trustees.

Toledo is without a public water supply, or a sanitary sewerage system. An attempt was made to establish a public water supply a

few years ago and at the time a reservoir was made by damming a ravine in the northeast section of the village, this supply was found to be inadequate, owing to a limited watershed, and it was decided to use one of the public wells on the square in conjunction with this supply. This project was given up and now drinking water is obtained from 208 private sources of supply. There are in this village nine homes with inside water closets whose effluent drains into septic tanks with outlets into the storm sewer. There are in the village 212 privies. These will be classified later in this report.

NEOGA

NEOGA, the largest village in the county, is located in Neoga Township in the northern section of the county. There are 255 occupied homes and about 1,300 people. The business section covers five village blocks and comprises about 40 stores.

The topography of Neoga is generally flat, all of the streets of the village are unpaved but are kept in good condition by being frequently oiled. They are well lighted, current being supplied to the village by an outside corporation. The local government consists of a village president and a board of six trustees.

Neoga has a public water supply derived from a shallow well in the eastern section of the village. This well is 15 feet deep, 15 feet across and yields a sufficient quantity of water even in dry weather. It is protected from surface drainage by a concrete top and curbing, and is cased with brick to the water level. The water is pumped from this well to an equalizing tank and from there distributed to the consumers. There are in Neoga 275 private sources of supply.

Neoga has no sanitary sewerage system. At the time of the survey a system which would drain the area situated between the two railroads, including the entire business district and about 35 homes was recommended to the village board for action. This sewer was to be owned by a private company composed of citizens of the village and to be transferable to the village at any time upon the payment of the original cost. A great deal of discussion upon this matter was brought up by the board and at the time of the completion of our survey it was about to be accepted. There are in Neoga 236 privies.

JEWETT.

JEWETT, the smallest incorporated village in the county, is located in Woodbury Township in the south central section of the county and contains 64 occupied homes and about 400 people. The village is laid out along the main line of the Vandalia Railroad, and the business section has about 10 stores. The streets are unpaved, however along the National Highway, which is the main street of the village, several yards of gravel has been placed; this will in time greatly improve this road. The streets are unlighted and there is no public light plant in the village. Cement sidewalks are being laid to most of the residences in the village.

The local government is administered by a board of six trustees, one of them acting as temporary chairman.

GREENUP.

GREENUP is an incorporated village of about 1,200 people located in Greenup Township in the southeastern section of the county. There are about 247 occupied dwellings in this village, and a business section of about 35 stores.

The topography of Greenup is generally flat, but due to its location adjoining the river and some 50 feet above, there are many deep valleys cutting through portions of the town. All of the streets are unpaved but are kept in a fair condition, and are well lighted by electricity supplied by the local plant. Concrete and brick sidewalks extend to nearly all of the residences within the incorporated area.

The local government consists of a village president and a board of six trustees.

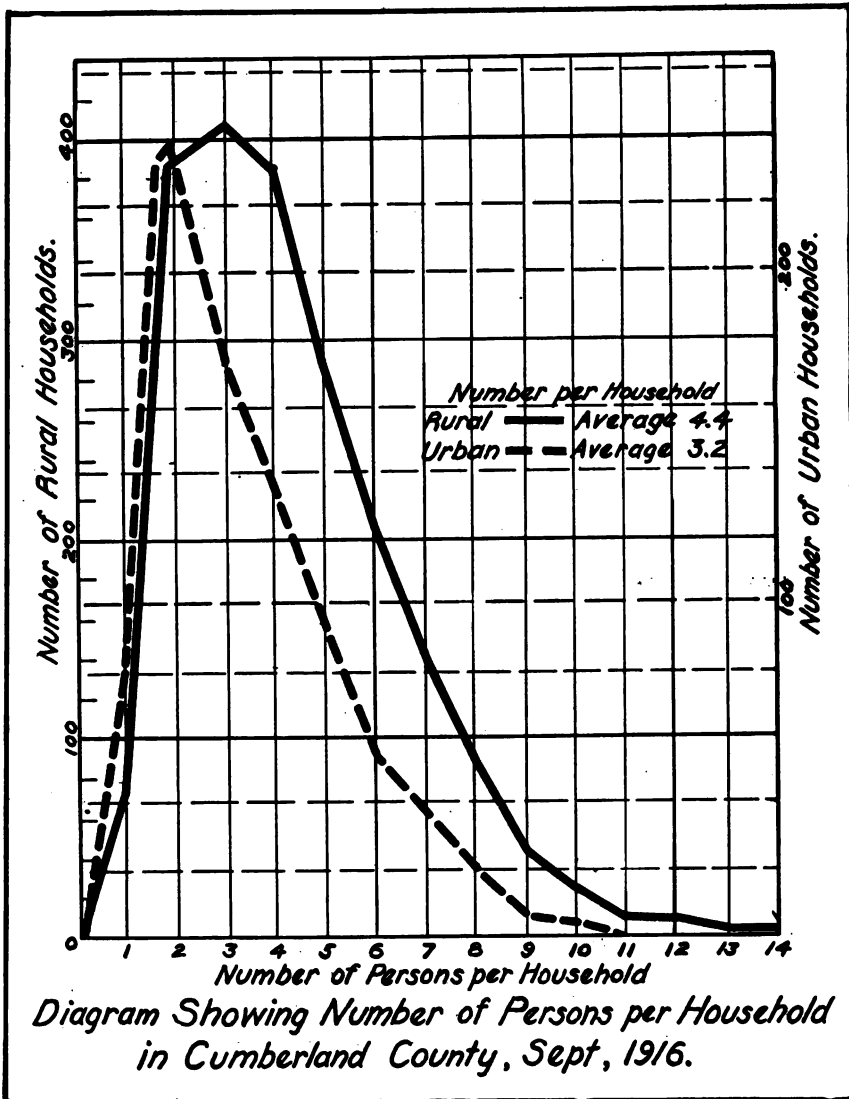
Greenup has a public water supply which is obtained from the Embarrass River without purification. The river water is unquestionably heavily polluted at times, is very muddy, and in summer, exceedingly bad. There has been considerable discussion at various times concerning an improved supply, but nothing definite has been decided upon. There are two artesian wells in Greenup from which many homes obtain water for drinking purposes. A few years ago a considerable quantity of water from these wells was shipped for medicinal purposes but lately the water is little used except by local public. In this town there are 243 private sources of water supply. For the most part these consist of shallow dug wells ranging in depth from 15 to 25 feet. These even in extreme dry weather, supply a sufficient quantity of water but the quality of water is only medicinal since few of these wells are well protected against surface contamination and some of them are dangerously near to the privies. (Many of which are of the "pit" variety.)

Greenup has several sewers with cemented joints discharging into a ditch in the westerly part of the village, with an ultimate outlet into the river, one-half mile below the water intake. These sewers drain the business section and several private homes. There are within the incorporate limits of Greenup 247 privies.

DATA OBTAINED FROM THE SURVEY.

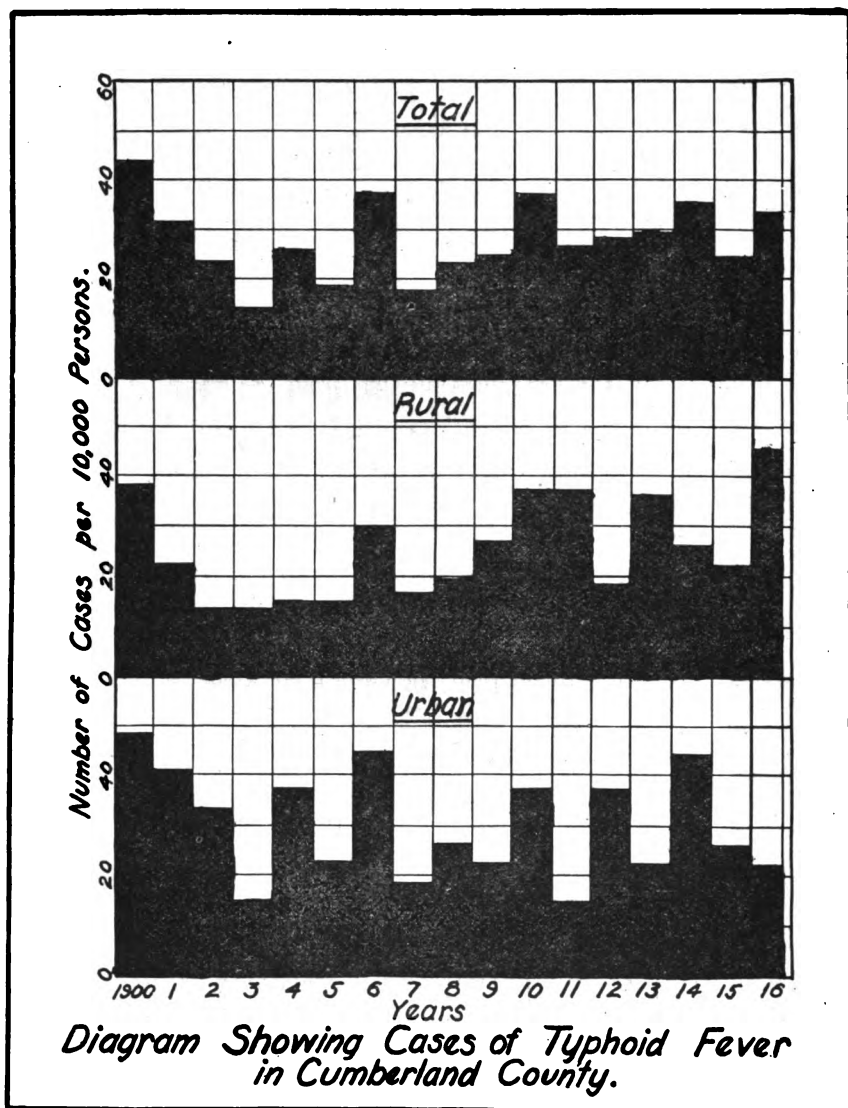
THE RURAL POPULATION of Cumberland County is 9,061, divided among the eight townships as follows: Cottonwood 1,050; Spring Point 1,020; Neoga 1,479; Union 1,442; Crooked Creek 969; Greenup 1,411; Sumpter 1,302 and Woodbury 388.

A study was made of the number of inmates in each house. It was found that there were 281 vacant houses and 73 in which there was but one inmate. Of houses having two inmates there were 386; three inmates 408; four inmates 384; five inmates 286; six inmates 206;



seven inmates 142; eight inmates 89; nine inmates 42; ten inmates 25; eleven inmates 9; twelve inmates 10; thirteen inmates 2 and fourteen inmates 3.

DURING THE PERIOD from 1900 to 1916 inclusive, there have been 393 known cases of typhoid fever in the county, the lowest prevalence of the disease being in 1902 and 1903, with 12 cases each



and the highest in 1916, with 41 cases. Thus the typhoid morbidity rate has varied from 13.3 per 10,000 of population to 45.3 per 10,000 of population. During the same period of 10 years, there have been 23 deaths from typhoid.

The 41 cases known from March, 1915, through September, 1916, were studied in detail. Of these 27 individuals contracted the disease

at home and 8 at other places. There were 5 secondary cases and in 7 it could not be learned where the disease was contracted.

In these cases, the dejecta were buried in 29 cases, scattered in 6 cases, burned in 2 cases and treated with acid in 3 cases.

Disinfection was efficient in 16 cases and fair in 6 cases. There was no disinfection in 15 cases and in 4, no information could be obtained.

THE AVERAGE DISTANCE from the house to the privy varied from 76 feet in Cottonwood Township to 123 feet in Neoga township.

It was found that 72.3 per cent of the houses were completely screened for flies; 17.6 per cent partly screened and 10.1 per cent not screened at all.

In 89.6 per cent of cases, the water supply was derived from wells, 9.7 per cent from cisterns and 0.7 per cent from springs. The average distance of the source of water supply to the privy varied in the different townships from 87 feet in Neoga Township to 100 feet in Greenup Township.

Of the 2,232 sources of water supply, 46.2 per cent had wood curbing, 2.1 per cent rock curbing; 34.7 per cent cement; 8 per cent brick; 0.2 per cent dirt, 3.2 per cent terra cotta and 4.6 per cent no curbing. Stone was used in casing the walls in 570 cases; brick in 1,533; cement in 12; iron in 19; tile in 66 and wood in 2.

The wells varied in depth from 21 to 23 feet.

In 71.5 per cent of cases, pumps were used and in 27.2 per cent buckets. Tight platforms were found in 35.6 per cent of cases and not tight in 64.3 per cent. Cisterns were water tight in 91.4 per cent of cases.

In the 2,378 premises, 1,817 privies were found with 561 premises without privies.

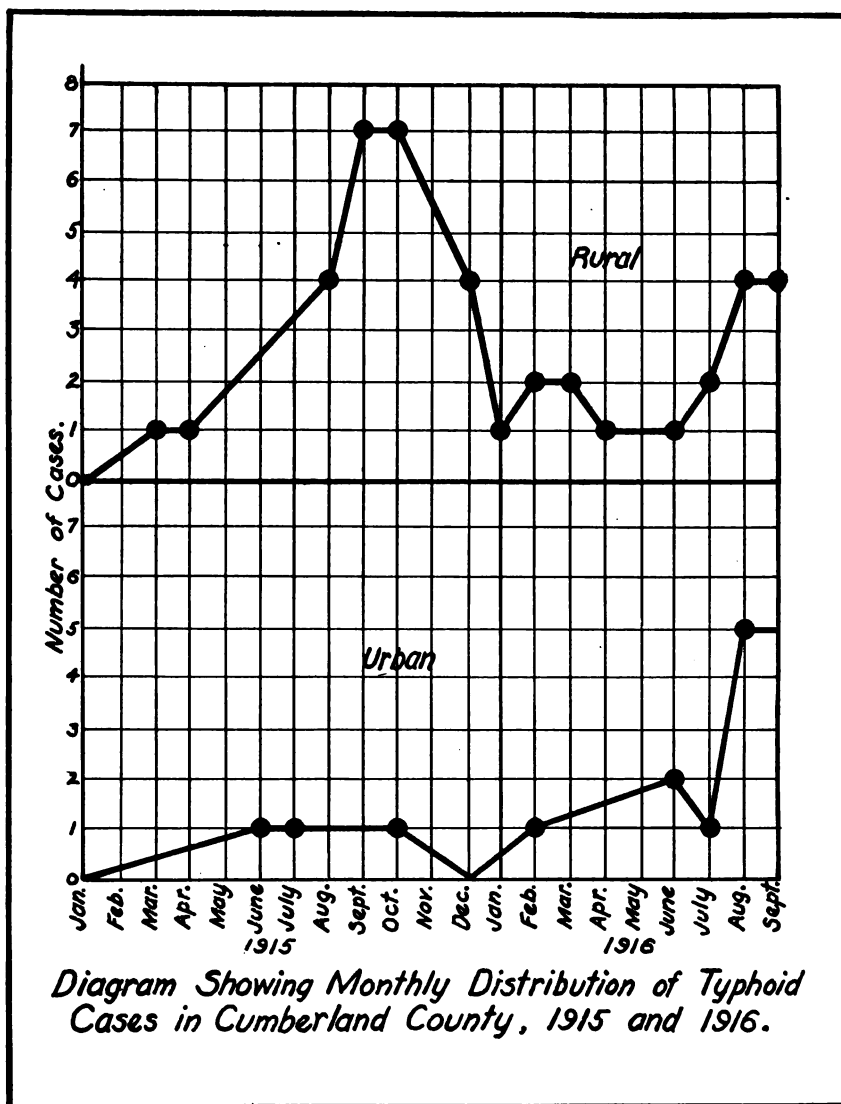
It will be borne in mind that the foregoing figures are all taken from the rural sections.

IN THE CORPORATIONS of Greenup, Toledo, Jewett and Neoga there were 847 dwellings. Of these 78 were occupied by single individuals. There were two inmates in 238 houses; three inmates in 172; four inmates in 135; five inmates in 94; six inmates in 54; seven inmates in 38; eight inmates in 20; nine inmates in 6 and ten inmates in 4.

The total population of the four municipalities was 2,686.

The number of cases of typhoid fever in these towns combined from 1900 to 1916 varied from four in 1903 and 1911 to thirteen in 1900, or a rate per 10,000 population of 14.9 to 48.4. There were five deaths from typhoid fever during the past ten years, three in Neoga and one each in Toledo and Greenup.

Of the 12 cases of typhoid fever occurring between June, 1915, and August, 1916, six were in Greenup, five in Toledo and one in Neoga. Of these, eight cases were contracted at home and two were acquired elsewhere; one was a secondary case. The kind of canvass made usually gets histories of only about 50 per cent of cases which have actually occurred.



In these cases the dejecta were disposed of in a privy in one case, buried in three cases and burned in five cases. In three cases disinfection was efficient; in four cases it was fair and in one case there was no disinfection.

IN A STUDY of the premises of these four municipalities, it was found that the average distance from the house to the privy was from 92 to 98 feet. Of the 917 dwellings 86.1 per cent were com-

pletely screened, 9.9 per cent were partially screened while 4 per cent of the houses had no screens at all.

As to the source of water supply 81.1 per cent had wells; 0.1 per cent springs, 14.7 cisterns and 4 per cent used water from the municipal supply. The wells and cisterns used in water supply averaged about 93 feet in distance from the privy.

Of the 234 wells 31.3 per cent had wood curbing; 1.3 per cent had rock curbing; 48.0 per cent had cement curbing; 10 per cent had brick curbing; 0.1 per cent had dirt curbing and 1 per cent had terra cotta curbing and 22.7 per cent had no curbing. The wells were cased with brick in 85.1 per cent of cases; with stone in 8.5 per cent; cement 1 per cent; iron 0.1 per cent; tile 0.1 and wood 0.1.

The average depth of wells was about 21 feet, and pumps were used in 88.6 per cent of cases and buckets in 10.4. The platform was found to be tight in 48.7 per cent of cases and not tight in 51.3 per cent.

IN 920 PREMISES in the four municipalities there were 858 privies and 26 inside water closets and 36 premises without either privy or water closets.

THE FOREGOING INFORMATION is taken from the preliminary report and indicates the scope of the investigation of the general sanitary communities and the rural and urban sections of the county. After the original survey, return visits were made to 1,192 homes and it was found that in 22 per cent of these homes material improvements of some kind had been made. In 17 per cent improvements had been made in the method of waste disposal while sanitary waste disposal methods had been adopted in 11 per cent of the homes. Return visits were also made to 74 schools and it was found that the water supply had been properly protected in 67 per cent of these while 40 per cent of the schools had installed sanitary privies. Sanitary privies had also been installed in 50 per cent of the railroad stations.

THE CUMBERLAND COUNTY FAIR GROUND is located in Greenup Township adjoining the Village of Greenup. It is used for county fairs once a year and for an occasional camp meeting. The water supply is derived from four bored wells and from the Lyons mineral well.

The average disposal consists of three dilapidated "E" type privies and during the fair they become so offensive, especially the men's, that excreta is deposited on the ground around the privy.

A meeting was held with the board of directors and funds were appropriated to make the privies sanitary.

Two concrete vaults 20 feet long, 3 feet deep, 3 feet wide with walls 5 inches thick were constructed.

The building of the women's privy was utilized and the seats made flyproof and ventilated by means of three flues.

A new building was constructed for the men's privy and a galvanized urinal which drains into the vault was installed. These privies proved entirely satisfactory, having ample capacity and were practically odorless.

The State Board of Health furnished an exhibit which was demonstrated to about five thousand people during the fair from August 28, to September 2.

DELEGATIONS from the following adjacent towns visited Toledo and inspected the work: Oakland, Effingham, Mattoon, Olney and Paris, Illinois. The delegates were furnished with sample ordinances for use in their respective towns.

The results in the incorporated villages were not as gratifying as the results in the rural communities. A great deal of opposition was encountered in all of the villages. However, each village passed a sanitary privy ordinance and only one has failed to enforce the ordinance, namely the village of Jewett. Their reason for not doing so was because of lack of funds. Toledo had the installation of sanitary privies about 50 per cent completed but were having difficulty in getting receptacles. The ordinance at Greenup was not effective until December 10, 1916, but there were installed about 40 sanitary privies or about 14 per cent of the necessary number at the time the survey was completed.

Neoga's ordinance was in effect and about 30 per cent of the houses had complied with it at the time the survey was completed. A sanitary sewer was to be laid which would drain the business section and the residences between the two railroads and would complete the sanitation of that village.

FROM OVER THE STATE.

Knox County has a small colony for the tuberculous at the county farm at Knoxville with a graduate nurse and assistant nurse in charge.

* * *

Henry County has arranged for the care of the indigent tuberculous in a private sanatorium, paying \$14 per week for this service.

* * *

Belleville has a school physician who gives his full time to the work. This is an example which should be followed by other Illinois cities.

* * *

B. L. T., in the *Chicago Tribune*, says the reason the air is so much purer in the country is because the people keep their windows closed.

* * *

Experiments with vaccine taken by mouth to prevent smallpox, proves it to be almost as effective as a buckeye in the trouser pocket to keep off rheumatism.

**RESOLUTIONS ADOPTED BY THE ILLINOIS PUBLIC
HEALTH AND WELFARE ASSOCIATION.**

**RESOLUTION RELATING TO TRAINING AND LICENSURE OF MIDWIVES
IN THE STATE OF ILLINOIS ADOPTED BY THE ILLINOIS
PUBLIC HEALTH AND WELFARE ASSOCIATION.**

WHEREAS, About 50 per cent of all births are attended by midwives, and,
WHEREAS, In the State of Illinois there is neither provision for the adequate
training nor control of these women who as a result are unfit to discharge the
important functions which they assume, and

WHEREAS, Childbirth is second only to tuberculosis as a cause of death
among women from fifteen to forty-five years of age—much of which is pre-
ventable through skilled care, and a large number of infants die annually from
preventable causes, therefore, be it

Resolved, That the Illinois Public Health and Welfare Association endorse
the efforts of the newly created Department of Public Health and the Illinois
Society for the Prevention of Blindness to secure provision for adequate train-
ing, satisfactory examination before licensure, as well as the supervision of
midwives in Illinois.

**RESOLUTION RELATIVE TO THE APPOINTMENT OF DR. C. ST. CLAIR
DRAKE AS DIRECTOR OF THE STATE DEPARTMENT
OF PUBLIC HEALTH.**

WHEREAS, The reappointment of Dr. C. St. Clair Drake not only continues
in office an efficient public servant, but also lifts the health work of the State
of Illinois out of the realm of partisan politics, therefore, be it

Resolved, That the Illinois Public Health and Welfare Association commend
the Governor for his action in this wise reappointment.

**RESOLUTION RELATING TO PREVENTION OF COMMUNICABLE
DISEASES AMONG THE TROOPS OF THE
UNITED STATES.**

WHEREAS, It is a recognized fact that one of the greatest perils of warfare
is the prevalence of preventable and communicable diseases, be it

Resolved, That the Illinois Public Health and Welfare Association petition
the President of the United States and Congress assembled to speed the con-
struction of military hospitals, sanatoria and safeguards of the health of the
soldiers of the United States in their camp life.

**RESOLUTION RELATING TO ANTICIPATED TUBERCULOSIS AMONG
ILLINOIS TROOPS.**

WHEREAS, The prevalence of tuberculosis in active form among the troops
returning from the front is proving a serious problem to the warring nations
in Europe, and

WHEREAS, War with its attendant strain and hardship tends to arouse
latent infection into acute disease, and

WHEREAS, The present war will find Illinois without adequate sanatorium
facilities for normal time and wholly unprepared for a great increase in tuber-
culosis, therefore, be it

Resolved, That the Illinois Public Health and Welfare Association hereby
recommends that all possible steps be taken to prevent the development of
tuberculosis among Illinois troops by more rigid examination by physicians

during recruiting, and by the best sanitary camp conditions and that preparations be made for adequately meeting the tuberculosis problem of the State by speeding the construction of the public sanatoria already provided for by law and the encouragement of other similar institutions.

**RESOLUTION APPROVING THE PRESIDENT'S COURSE TOWARD
GERMANY AND URGING THE SAFEGUARDING OF
HEALTH AMONG THE TROOPS.**

WHEREAS, The President of the United States in safeguarding and protecting the lives and interests of the people of these United States has found it necessary to declare war upon Germany, and

WHEREAS, It is a recognized fact that one of the greatest perils of warfare is the prevalence of preventable and communicable diseases, be it

Resolved, That the Illinois Public Health and Welfare Association endorse the President's action and bring to him the loyal support of this Association, and be it also

Resolved, That the Illinois Public Health and Welfare Association, bids the President of the United States to speed the construction of military hospitals and sanatoria, and institute all possible safeguards for the health of the soldiers of the United States during the impending conflict.

RESOLUTION ENDORSING SENATE BILL NO. 314.

WHEREAS, Senate Bill 314 gives the State Department of Public Health supervision over the installation and operation of public water supplies and sewerage systems in so far as public health and sanitation may be affected, and

WHEREAS, This also transfers from the Rivers and Lakes Commission to the State Department of Health supervision over stream pollution in accordance with the spirit and intent of the new administrative code, and

WHEREAS, This bill provides for positive checks against arbitrary or unjust action on the part of the State Department of Health by providing references to hearings and to impartial expert commissions of all disputed orders, therefore, be it

Resolved, That the Illinois Public Health and Welfare Association endorse this Senate Bill 314 and urge its passage by the Legislature.

**RESOLUTION RELATIVE TO THE NEW ADMINISTRATIVE CODE OF
THE STATE OF ILLINOIS, CREATING A DEPART-
MENT OF PUBLIC HEALTH.**

WHEREAS, The new administrative code gives proper emphasis to the value of public health work by creating the Department of Public Health, one of the nine great departments for handling the State's administrative business, therefore, be it

Resolved, That the Illinois Public Health and Welfare Association commend the Governor and the Legislature for the enactment into law of this new code.

**RESOLUTION RELATING TO APPROPRIATIONS FOR THE STATE
DEPARTMENT OF PUBLIC HEALTH.**

WHEREAS, The State Department of Public Health has been made one of the nine great bureaus of the State Government, and

WHEREAS, The principal efforts of its predecessor, the State Board of Health, have been devoted to the administration of the medical practice act, thus leaving little time and little money for real public health work, therefore, be it

Resolved, That the Governor and Legislature are hereby urged to grant appropriations that will enable the State Department of Public Health to

become an efficient and effective department in all its activities, including control of communicable diseases; sanitary engineering, sanitary surveys, infant welfare, prevention of blindness; control of midwives; public instruction, registration of births and deaths, and laboratory diagnostic work.

**RESOLUTION RELATING TO PREVENTION OF BLINDNESS ADOPTED
BY THE ILLINOIS PUBLIC HEALTH AND WELFARE
ASSOCIATION.**

WHEREAS, One-half of all blindness is preventable, and

WHEREAS, Each case of blindness not only imposes suffering and handicaps the individual sufferer, but costs the State about \$10,000, therefore, be it

Resolved, That the Illinois Public Health and Welfare Association endorse the efforts of the Illinois Society for the Prevention of Blindness to prevent blindness and conserve the vision of the citizens of this State, and that it endeavor to further this work as far as possible and consistent with its policies.

TO PREVENT INFECTION OF CHILDREN.

THE AMERICAN PEDIATRIC SOCIETY has completed a nationwide investigation of the venereal infection of children and, as a result of this investigation, has made the following recommendations to health officers:

1. That cities be required to provide adequate hospital and dispensary facilities for the care and treatment of children having vaginitis.

2. That matrons be placed in charge of the girls' toilet rooms in public schools.

3. That toilet seats embodying the principal of the U-shape be used in all schools and that the toilets be of proper height for different ages.

4. That city and State laboratories be empowered and equipped to make bacteriological examinations for physicians when patients can not afford to pay a private laboratory fee.

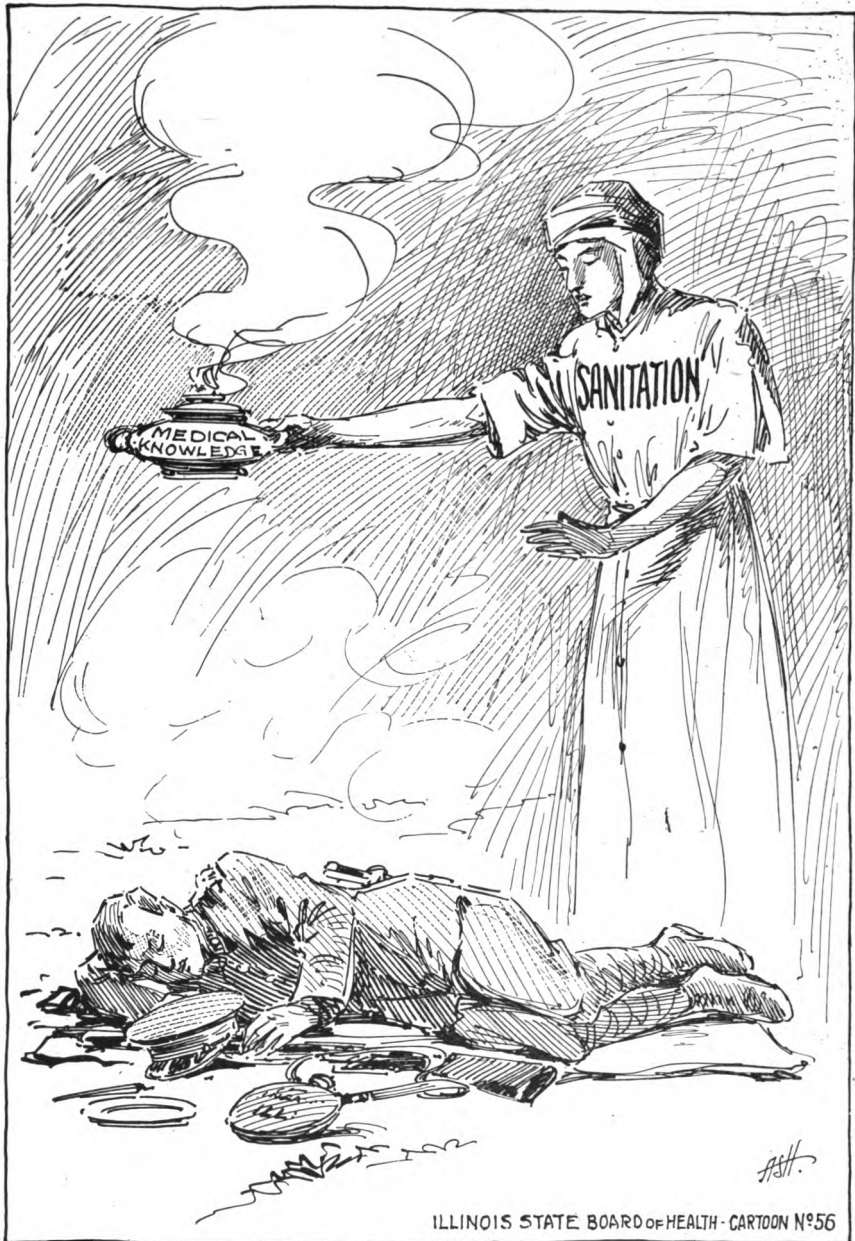
5. That educational literature on the subject of vaginitis be prepared and distributed to mothers through the medium of physicians, hospitals, dispensaries, health centers, municipal and visiting nurses.

6. That asylums for children and day nurseries be licensed, and that the license be not granted unless:

First—The institution has adequate facilities for the recognition of gonococcus vaginitis, and

Second—That the institution excludes children having this disease if they can not be properly isolated.

THE GUARDIAN ~ OF THE NATIONS GUARDIANS.



ILLINOIS STATE BOARD OF HEALTH · CARTOON N°56

~ SHE PROTECTS HIM FROM AN ENEMY MORE DEADLY THAN SHOT OR SHELL.

SANITARY WELLS AND PRIVIES

ILLINOIS HEALTH NEWS

"THE GREATEST WEALTH OF THE COMMONWEALTH IS HEALTH"

ILLINOIS STATE BOARD OF HEALTH
OFFICIAL MONTHLY BULLETIN

[Printed by authority of the State of Illinois.]

PUBLISHED AT SPRINGFIELD.

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Vol. III, No. 5.

MAY, 1917.

New Series

THE FARMERS' BEST CROP.



ILLINOIS STATE BOARD OF HEALTH-CARTOON N°57.

THERE IS NO VIRTUE IN HAVING MANY CHILDREN —
THERE IS MUCH CREDIT IN HAVING STRONG . . .
HEALTHY CHILDREN. —

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This bulletin sent free on request addressed to Dr. C. St. Clair Drake, Secretary,
State Board of Health, Springfield, Illinois.

ILLINOIS HEALTH NEWS

[Printed by authority of the State of Illinois.]

This bulletin will be sent free on request addressed to the Secretary, Illinois State Board of Health, Springfield, Illinois.

VOL. III, No. 5.

MAY, 1917.

NEW SERIES.

SANITARY PRIVIES

PRIVIES CAN EASILY AND CHEAPLY BE MADE SANITARY—COMPLETE PLANS AND WORKING DIRECTIONS

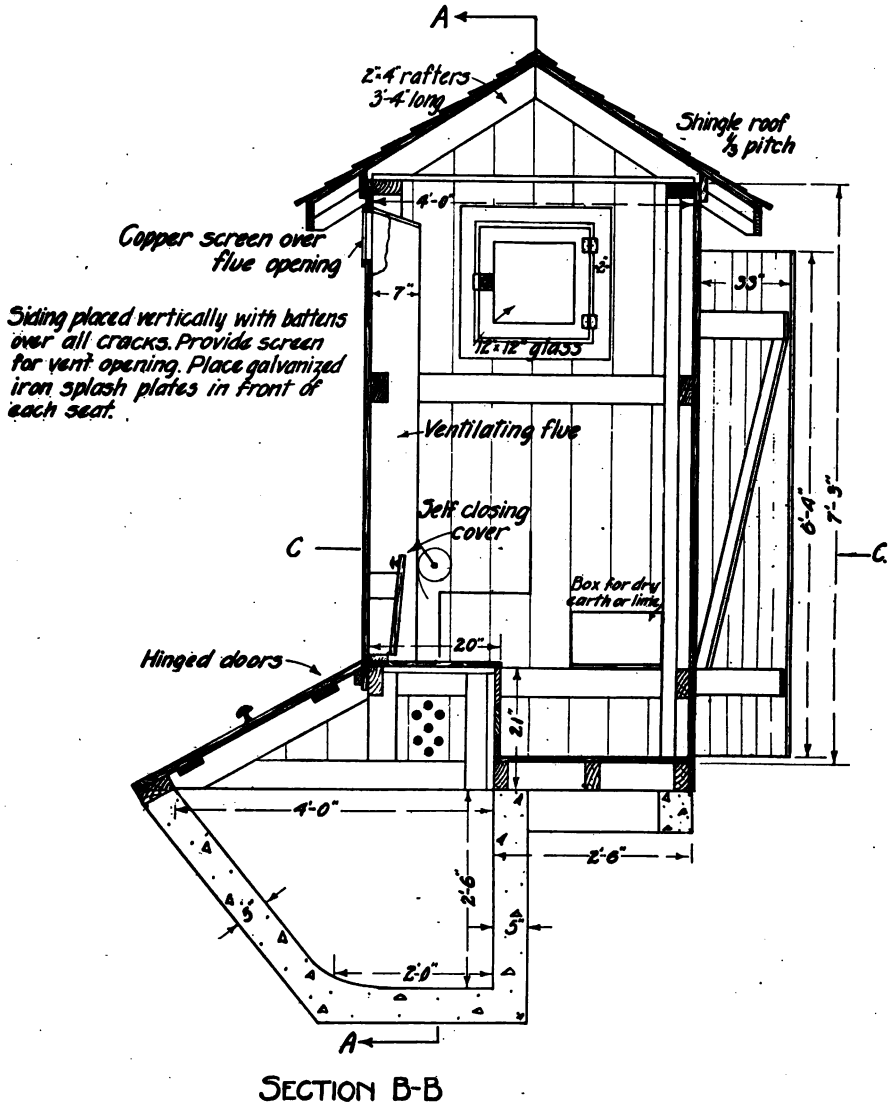
Prepared by the Bureau of Sanitary Engineering
of the Illinois State Board of Health

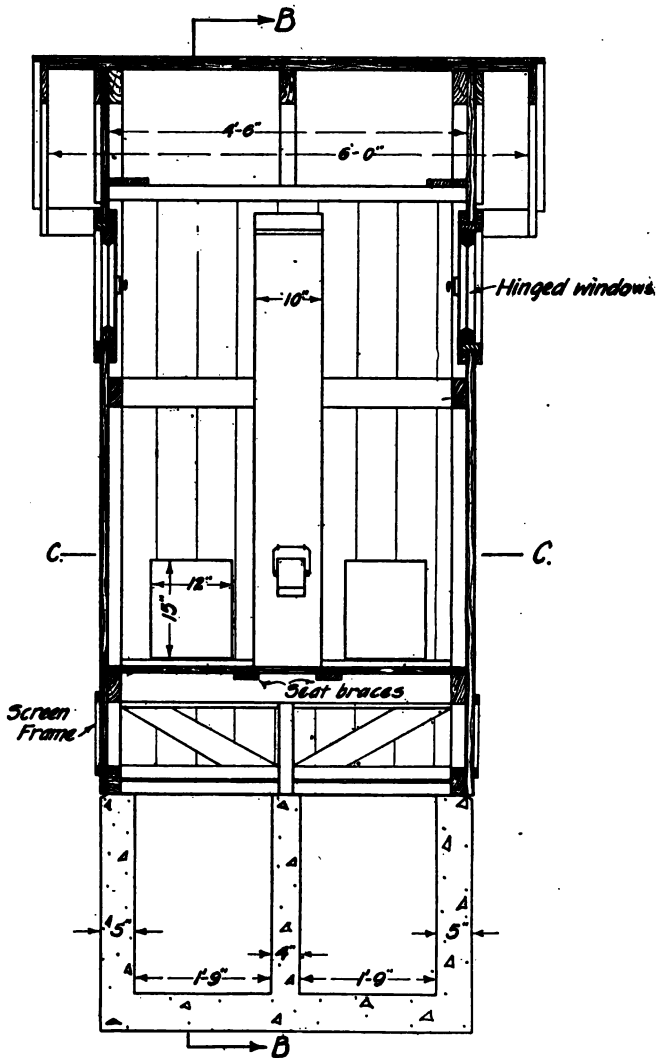
WITHOUT EXCEPTION, the greatest violation of sanitary requirements in the small towns and rural districts of Illinois is the outdoor privy as ordinarily constructed. If this menace could be done away with, the fly would be very largely deprived of its source of infectious matter, and wells would cease to become dangerously polluted; in short, at least three-fourths of the problem of rural sanitation would be solved.

Fortunately privies can be made sanitary in a surprisingly simple manner for it is merely necessary to make the compartment under the seats fly-tight and to so contain the fecal matter that it will not leach into the ground. The remainder of this article is devoted to detailed instructions on how these requirement may be met in several convenient and economical ways, and special attention is called to the insert box on page 132, whereby any existing unsanitary privy may be converted into a sanitary privy at a cost not to exceed \$5.

THE CONCRETE PIT PRIVY.

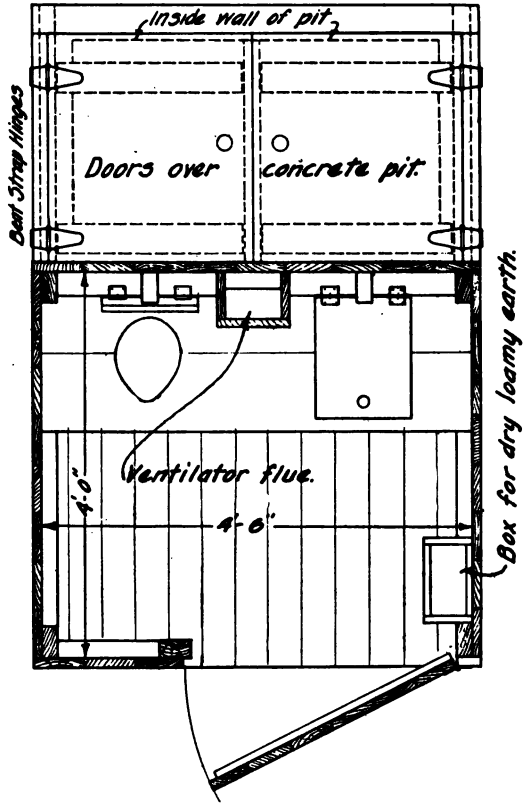
THE CONCRETE PIT PRIVY is the most readily adaptable to ordinary rural conditions and a structure suitable for the average farm home is shown in Figures I to IV inclusive and a bill of material for





SECTION AA.

FIG. II—Another view of the Concrete Privy shown in Fig. I. The above figure shows a section cut through from side to side.



SECTION ON C.-C.

FIG. III—Plan of Concrete Privy shown in Figs. I and II.

this privy is shown in Figure V. It will be noticed that the pit is divided into two compartments and for this there is an important reason. If one compartment alone is used until filled and then permitted to remain undisturbed while the other compartment is being filled (a period of sev-

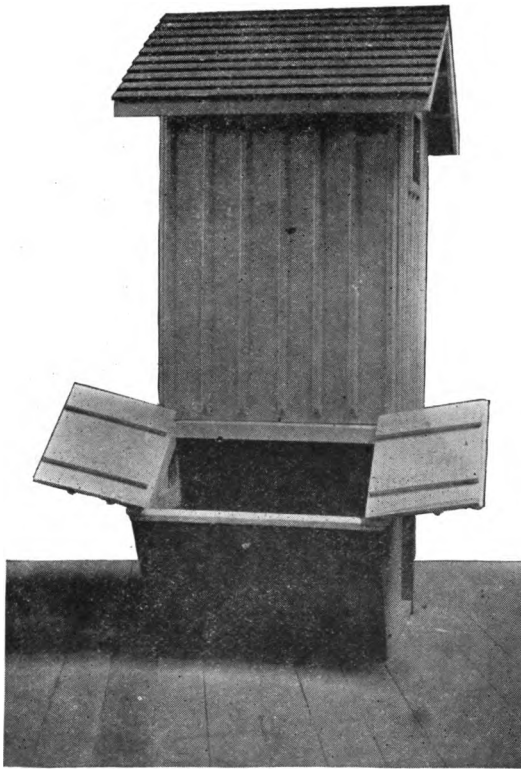


FIG. IV—Rear view of a model of the Concrete Pit Privy with the pit exposed.

eral months), then the matter will have become so dried and decomposed that it may be removed and applied to land remote from wells and springs, with but little difficulty and little offensive odor. The drying and decomposition process is much assisted by the application of a little dry loamy earth after each use.

**BILL OF MATERIAL FOR CONCRETE PIT PRIVY DESIGNED FOR
AVERAGE FARM HOME.**

7—1"x 4"— 8'	long. Flooring.
19—2"x 4"— 8'	long. Surfaced.
31—1"x 6"— 8'	" " For doors, walls, and top braces.
8—1"x 6"—10'	" " For walls.
1—1"x 10"— 6'	" " " front of vent.
1—1"x 6"—12'	" " " sides of vent.
7—1"x 4"—14'	" " " windows, door bracing, cornice.
1—1"x 3"—12'	" " " window casing.
1—1"x 12"— 4'	" " " seat covers.
1—1"x 6"—14'	" " (Tongue and Groove) for front of seat.
1—1"x 10"—10'	" " " " " " top of seat.
7—1"x 6"—14'	" " Rough boards for roof sheeting.
1	Ridge board 14' long.
20	Batten strips 16' long.
2	Window sashes with 12"x 12" glass.
27.3 cu. ft.	concrete, requiring 2 bbls. cement, $\frac{3}{4}$ yd. sand, 1 yd. stone.
500	Shingles or 45 sq. ft. composition roofing.
1	Door lock and 2 window locks.
7	Pairs of hinges for doors, windows and seat covers.
2	Galvanized iron splash plates, front of seats.
	Copper screening for vent openings.
4	Knobs for use in opening rear doors and seat covers.

FIG. V.

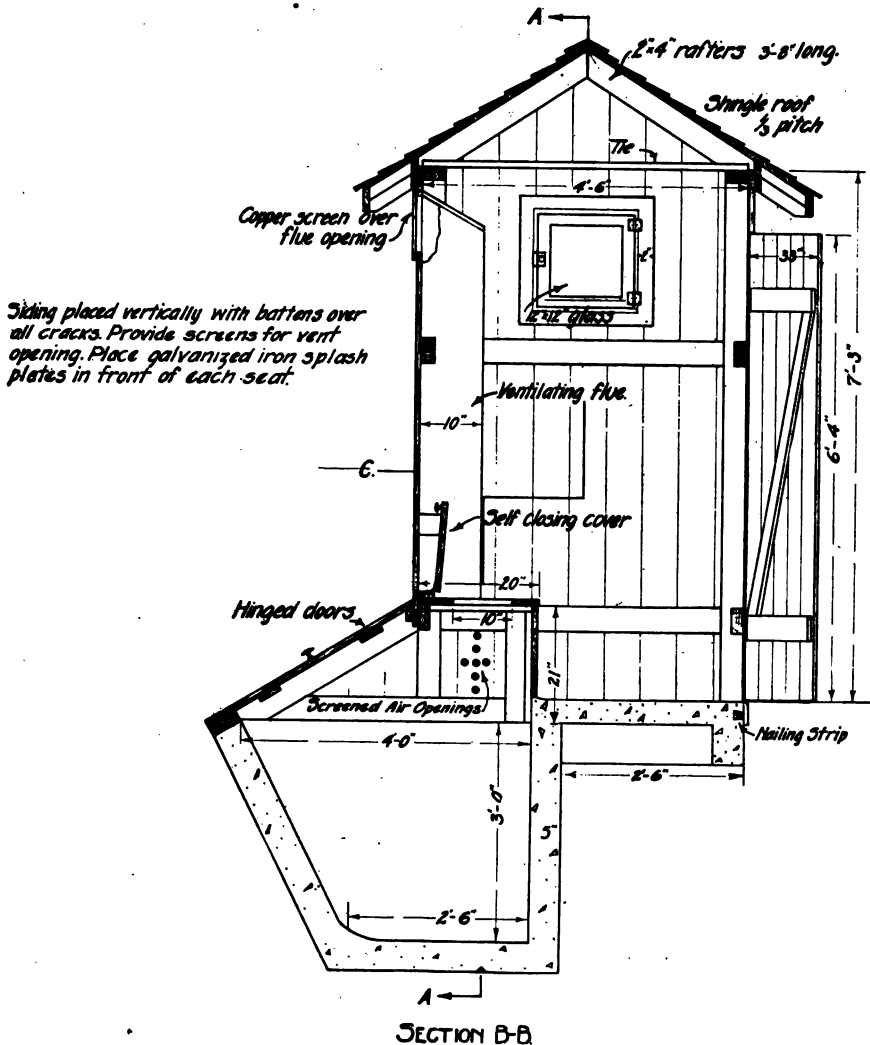
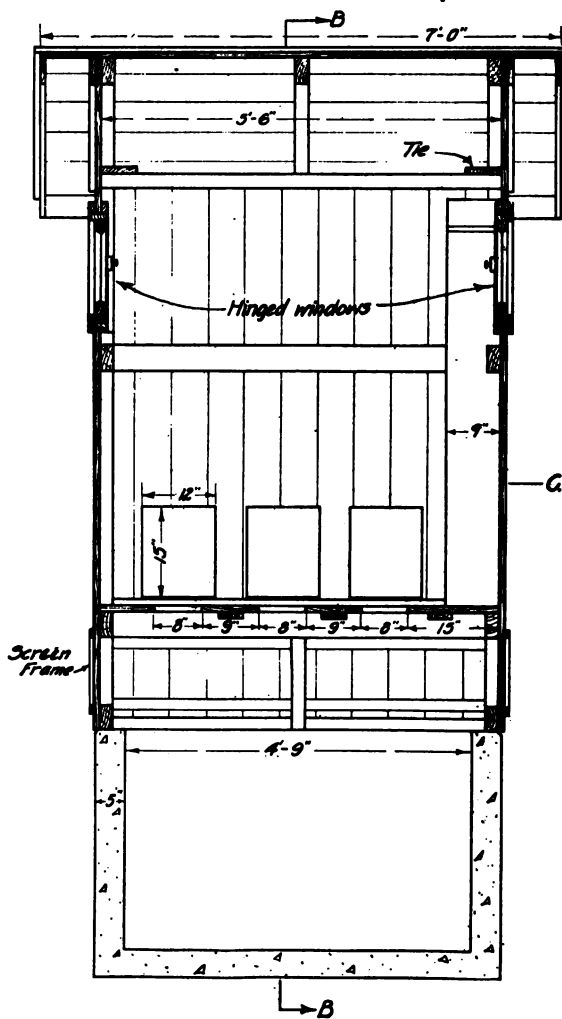
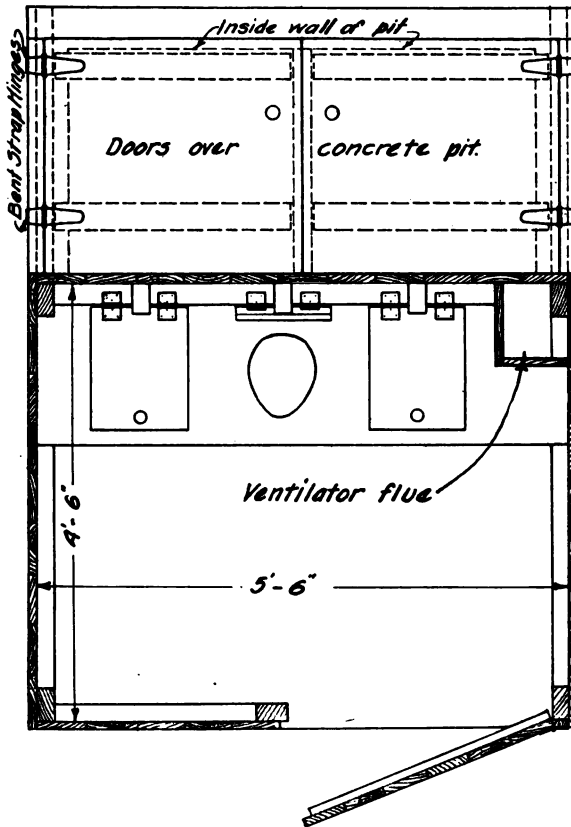


FIG. VI—A Concrete Pit Privy may be used advantageously in country schools. The above figure shows a section of such a privy cut through from front to rear.



SECTION A-A.

FIG. VII—Same Privy as in Fig. VI, showing section cut through from side to side.



SECTION ON C-C.

FIG. VIII—Plan of Privy shown in Figs. VI and VII.

**BILL OF MATERIAL FOR CONCRETE PIT PRIVY DESIGNED FOR
A COUNTRY SCHOOL.**

21—2"x 4"— 8' long. Surfaced.

30—1"x 6"— 8' " " For walls, doors, and top braces.

17—1"x 6"—10' " " For walls.

3—1"x 6"— 6' " " (Tongue and Groove). Front of seat.

1—1"x 10"—12' " " (" " "). Top of seat.

1—1"x 8"— 6' " " For side of vent.

1—1"x 10"— 6' " " " " " "

7—1"x 4"—14' " " Door braces, cornice, windows.

1—1"x 12"— 4' " " For seat covers.

1—1"x 3"—12' " " " window casing.

8—1"x 6"—14' " " Rough boards for roof sheeting.

1 Ridge board 14 long.

24 Batten strips 16' long.

2 Window sashes with 12"x 12" glass.

36 cu. ft. concrete, requiring 3 bbls. cement, 1 yd. sand, 1½ yd. stone.

500 Shingles or 60 sq. ft. composition roofing.

1 Door lock and 2 window locks.

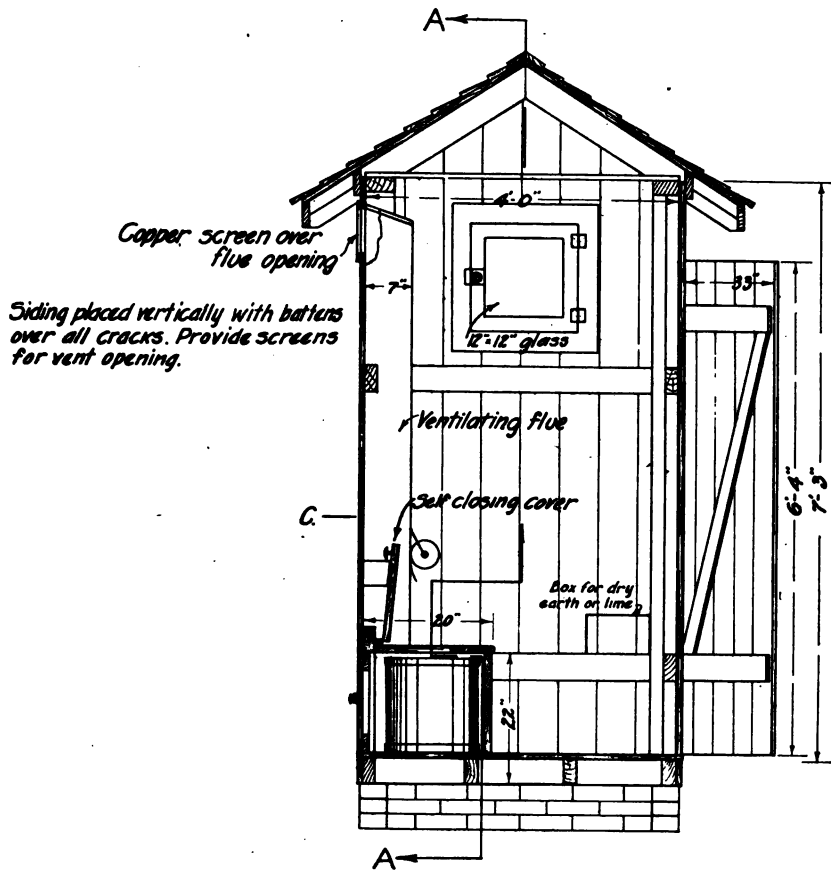
8 Pairs of hinges for doors, windows, and seat covers.

3 Galvanized Iron splash plates for front of seats.

5 Knobs for use in opening seat covers and rear doors.

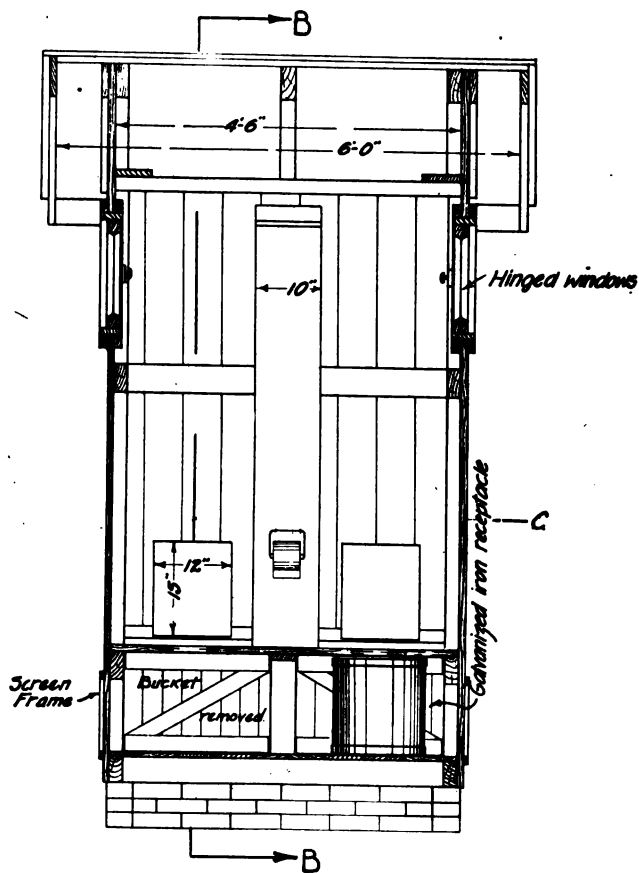
Copper screening for vent and other air openings.

FIG. IX.



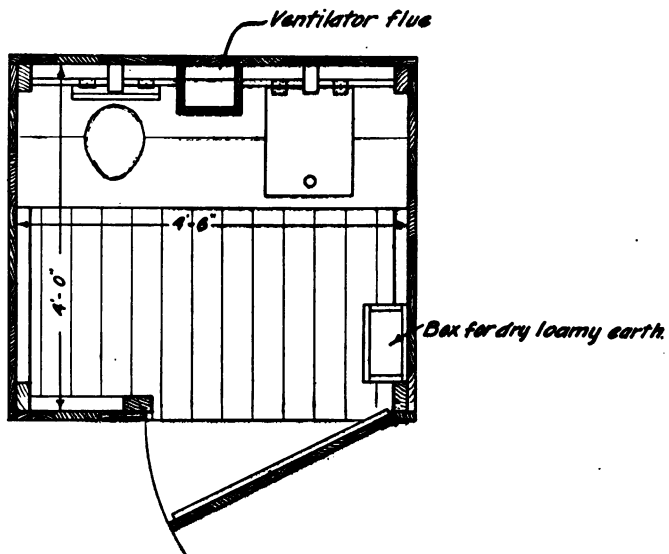
SECTION B-B.

FIG. X—A Substantial Privy with removable receptacle, especially suitable where there is a regular collection service. The above shows a section cut through from front to rear.



SECTION A-A.

FIG. XI—Same Privy as shown in Fig. X. The above shows a section cut through from side to side.



SECTION ON C-C.

FIG. XII—Plan of Receptacle Privy shown in Figs. X and XI.

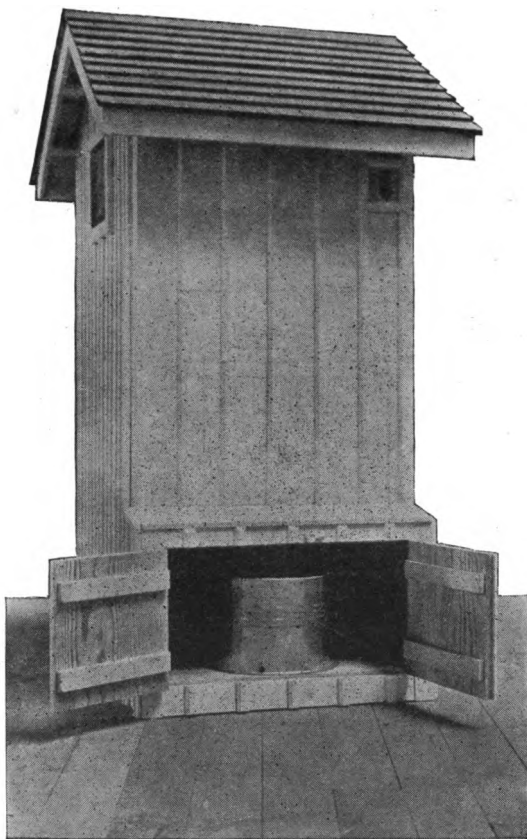


FIG. XIII—Rear view of a model of Privy with removable receptacle.

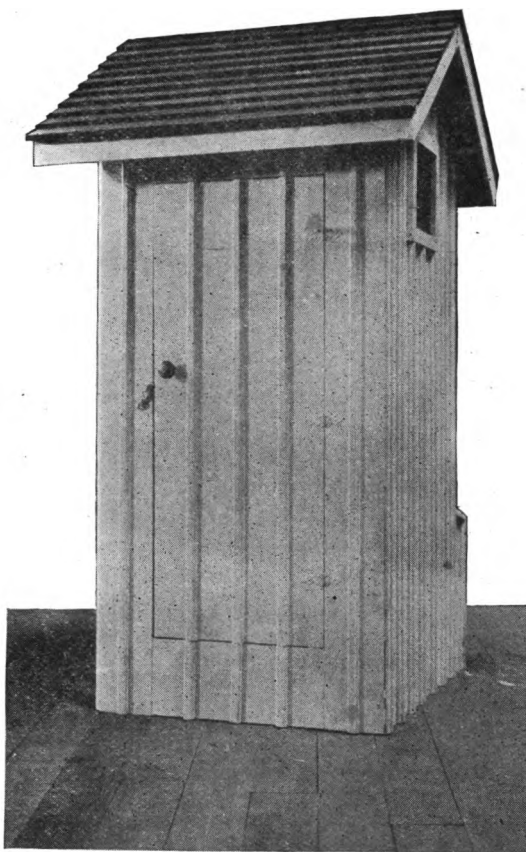


FIG. XIV—Front view of a model of Privy with removable receptacle.

BILL OF MATERIAL FOR RECEPTACLE PRIVY.

16—2"x 4"— 8' long. Surfaced.

25—1"x 6"— 8' " " For walls, doors and top braces.

13—1"x 6"—10' " " " " and sides of vents.

1—1"x 6"—14' " " (Tongue and Groove). Front of seat.

1—1"x 10"—10' " " (" " "). Top of seat.

1—1"x 12"— 4' " " For seat covers.

1—1"x 10"— 6' " " " front of vent.

6—1"x 4"—10' " " " door bracing, cornice, windows.

5—1"x 3"— 8' " " " back door & seat bracing, windows.

7—1"x 6"—12' " Rough. " roof sheeting.

7—1"x 4"— 8' " Matched flooring.

1 Ridge board 14' long.

20 Batten strips 16' long.

2 Window sashes with 12"x 12" glass.

500 Shingles or 45 sq. ft. composition roofing.

1 Lock for front door.

4 Locks for back doors and windows.

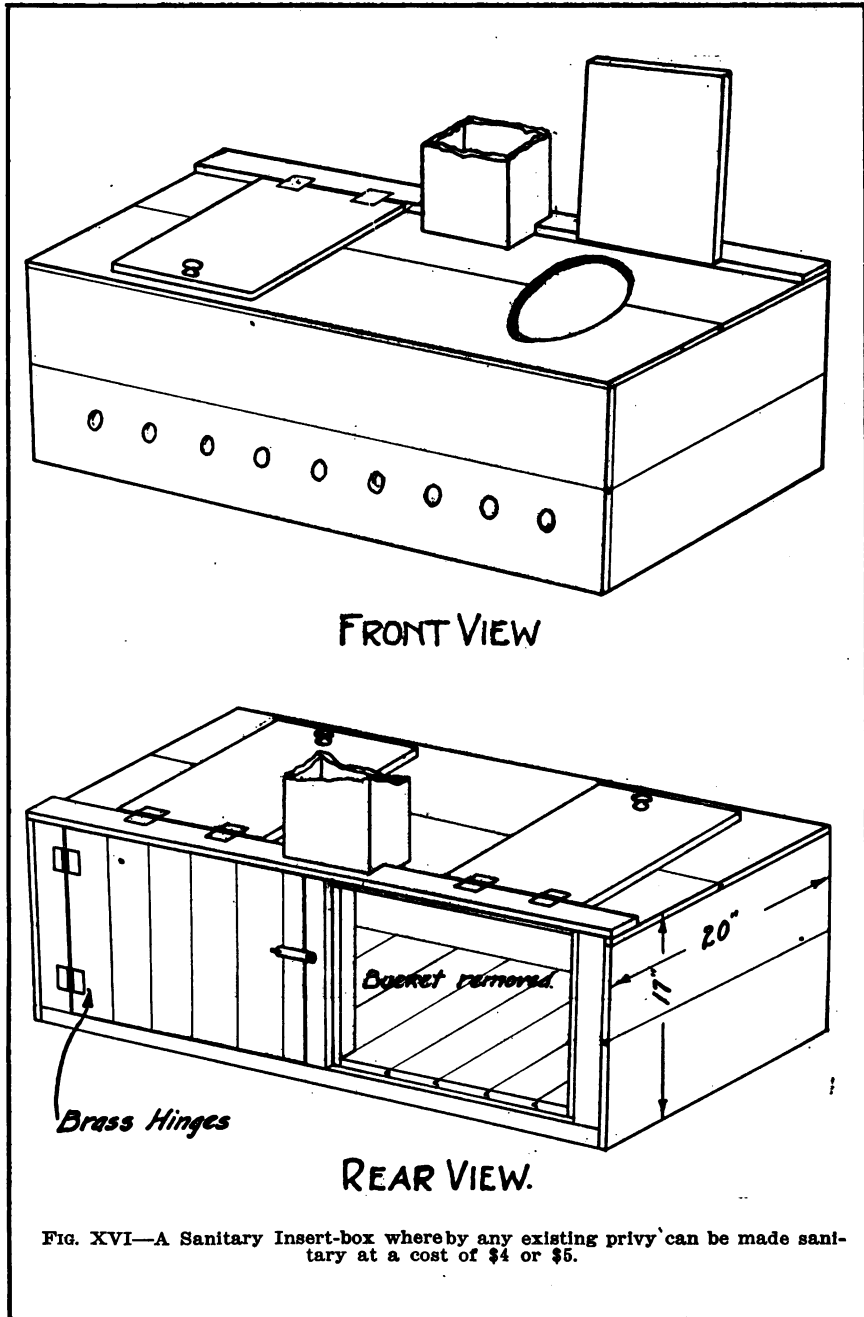
7 Pairs of hinges for doors, windows and seat covers.

2 Knobs for opening seat covers.

2 Well constructed galvanized iron cans 15" diam. 15" deep.

Copper screening for vent and air openings.

FIG. XV.



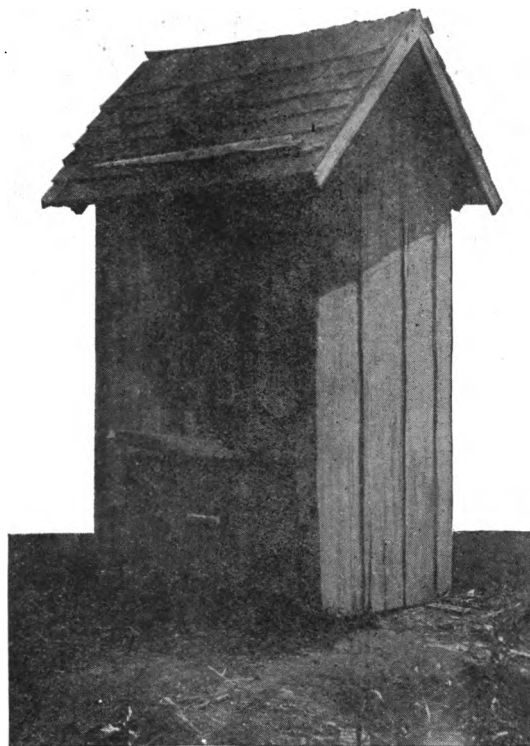


FIG. XVII—Photograph of an old privy recently equipped with sanitary insert-box.

THE CONCRETE PIT PRIVY ADAPTED TO THE RURAL SCHOOL.

FIGURES VI to VIII inclusive shows a concrete pit privy suitable for a country school and Figure IX gives the corresponding bill of material. In this privy only a single large compartment is provided because drying and decomposition may be permitted to take place during the summer vacation. For the boys' privy a substantial urinal should be provided in an enclosure outside the privy and drained through suitable piping into the pit. School privies should receive attention at the end of each school day on the part of the janitor or other person having responsibility for the condition of the school for the purpose of making repairs as needed, keeping the interior clean and applying dry loamy earth to the deposits.

PRIVY WITH REMOVABLE RECEPTACLES.

WHERE REGULAR SCAVENGER SERVICE is available, as in villages and small cities, a privy with removable receptacles proves cheapest and most convenient. A substantial privy of this type is shown in Figures X to XIV inclusive and the corresponding bill of material is given in Figure XV. Best results for the least money may be had if the receptacles are owned by and the collections are made by the municipality. Besides giving better and cheaper service, this method saves the cost and trouble of inspection of privies because the city collector may also perform the duties of an inspector.

SANITARY INSERT BOX.

NO EXCUSE EXISTS for maintaining any privy in an unsanitary condition, because the sanitary insert box (see Figure XVI) which can be built for \$4 or \$5 can be inserted in almost any existing privy by merely cutting out a portion of the back and fitting the new structure into the old. The vent flue shown only in part and near the center of the back may be placed anywhere that the existing structure permits, and may be made of any convenient height, with outlet as shown in Figure X and XI. There is no sanitary danger in leaving the vent flue off altogether, but the odors within the structures will be more pronounced. Figure XVII shows an old privy equipped with a sanitary insert box.

THE BIOLYTIC TANK PRIVY.

FIGURE XVIII illustrates a privy built along lines first suggested by officers of the United States Public Health Service. The corresponding bill of material is given in Figure XIX. It is more complex in design and more difficult to build than the privies already described, but possesses the advantage of converting most of the material into liquid form which may be readily disinfected or sterilized by boiling before application to the soil. This type of privy is especially effective where hookworm is likely to prevail, as in southern Illinois.

When first placed in service the tank under the seat should be filled with water to overflowing. After the privy has been in use for a few weeks a bacterial action develops similar to that which takes place in

cesspools. This action tends to dissolve and disintegrate the solids which may then pass off through the overflow into the kettle. Odors may be much reduced by maintaining a film of kerosene or other thin and relatively nonvolatile oil on the surface of the liquid in the tank.

THE CHEMICAL CLOSET.

OF RECENT YEARS a type of closet dependent upon a germicidal chemical for its successful operation has been placed on the market by several companies (see Figure XX). This apparatus makes it possible at a cost of about 50 cents to \$1 per year per person to have indoor closet facilities where no water or sewerage systems are available, and thus adds a much desired convenience to a home.

The various chemical closets manufactured all operate along the same general lines, and differ mainly in details of construction and cost. In all cases the deposits are received into receptacles containing a powerful germicide solution. Upon falling into this solution the products of elimination are deodorized, disinfected and more or less disintegrated. Local vents leading to out-of-doors are provided to care for odors in the closet bowl and the parts of the apparatus above the chemical tank.

A closet of this type when properly installed and cared for offers a great advantage over other types of privies so far as comfort is concerned. It must be remembered, however, that the device is not entirely foolproof. Unless it is provided with a sufficient quantity of a suitable chemical, and unless the deposits are properly removed, the chemical closet may become far more of a nuisance than the average privy and it is therefore not to be recommended where a water carriage system is available.

GENERAL.

IN PREPARING the several working drawings presented in this article, one of the objects was to attain simplicity of construction consistent with a degree of substantiality. From what has preceded, however, it must be obvious that any changes, either by way of simplification to reduce cost, or by way of elaboration to improve appearance and comfort, may be introduced, provided they do not interfere with the basic necessity of maintaining the compartment under the seat fly-tight and water-tight.

One desirable feature that should properly be included in all privies is a construction whereby the seats may be raised for urination. As with the seat covers, the seats should be made to close automatically and in such a way as to be fly-tight. Seats that may be raised have a further advantage, in that receptacles may be removed through them, thus saving labor and material necessary for making rear doors. The removal of receptacles from the interior is not however generally recommended, especially where there is scavenger service.

Hinges should be extra strong and preferably of brass. Strong hinges on rear doors are of special importance because any sag in the doors may admit flies.

No privy will take care of itself, hence systematic repair is essential to good results.

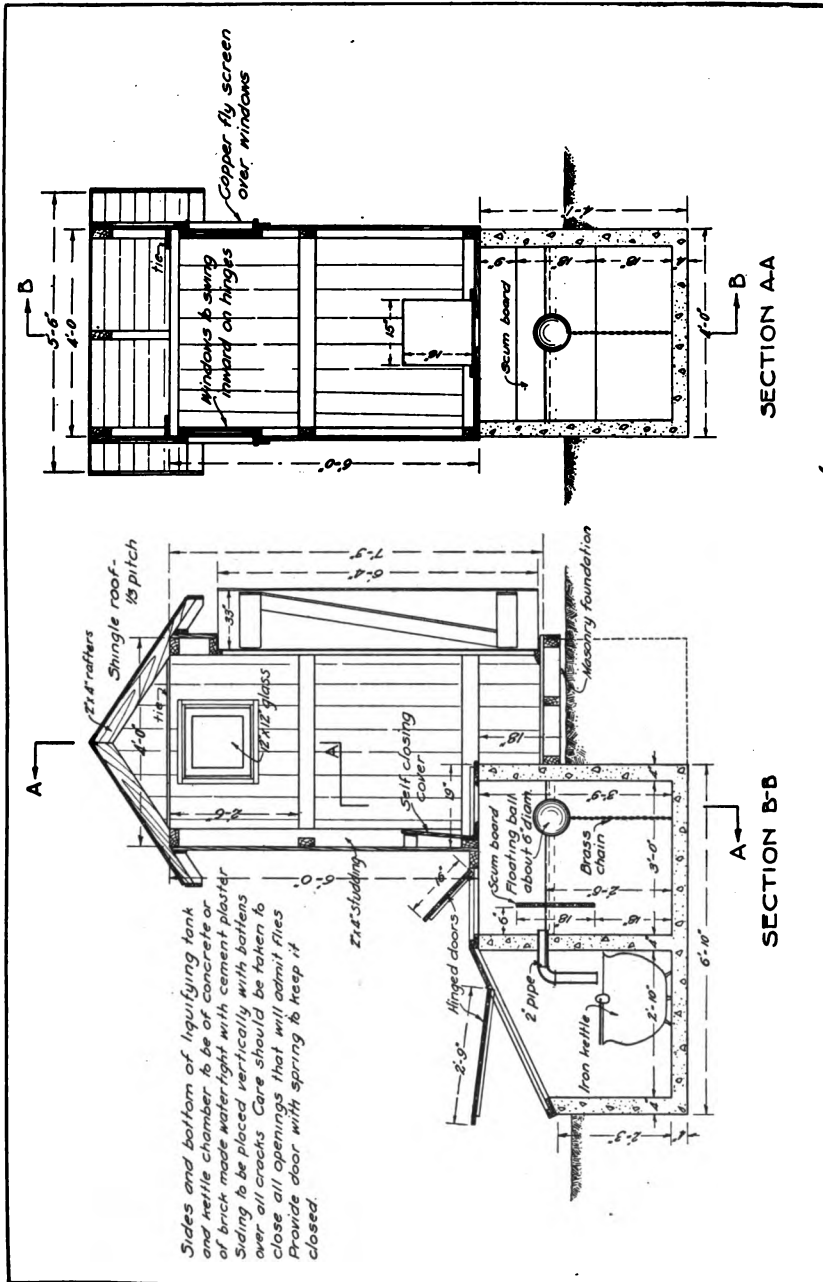


Fig. XVIII—The Biolytic Tank Privy, which liquefies solid matter and simplifies sterilization.

BILL OF MATERIAL FOR THE BIOLYTIC PRIVY.

16—2"x 4"— 8' long. Surfaced.

12—1"x 6"—12' " " For walls and rear covers.

10—1"x 6"—10' " " For walls.

8—1"x 6"— 8' " " For walls and door.

6—1"x 4"—12' " " Flooring.

1—1"x 9"— 8' " " Matched for top of seat.

7—1"x 6"—12' " Rough lumber for roof sheeting.

20 Batten strips 16' long.

500 Shingles.

40 cu. ft. concrete requiring 6 bags cement and 1¼ cu. yds. sand and gravel.

1 Iron kettle.

2 12"x 12" window sash and copper screens.

1 Wooden ball about 6" in diam. with brass chain connecting it with bottom of tank.

6 Pair brass hinges.

3" cast-iron soil pipe with elbow used as overflow for tank.

1 Lock for front door, 2 for windows.

4 Knobs for opening rear doors and seat cover.

FIG. XIX.

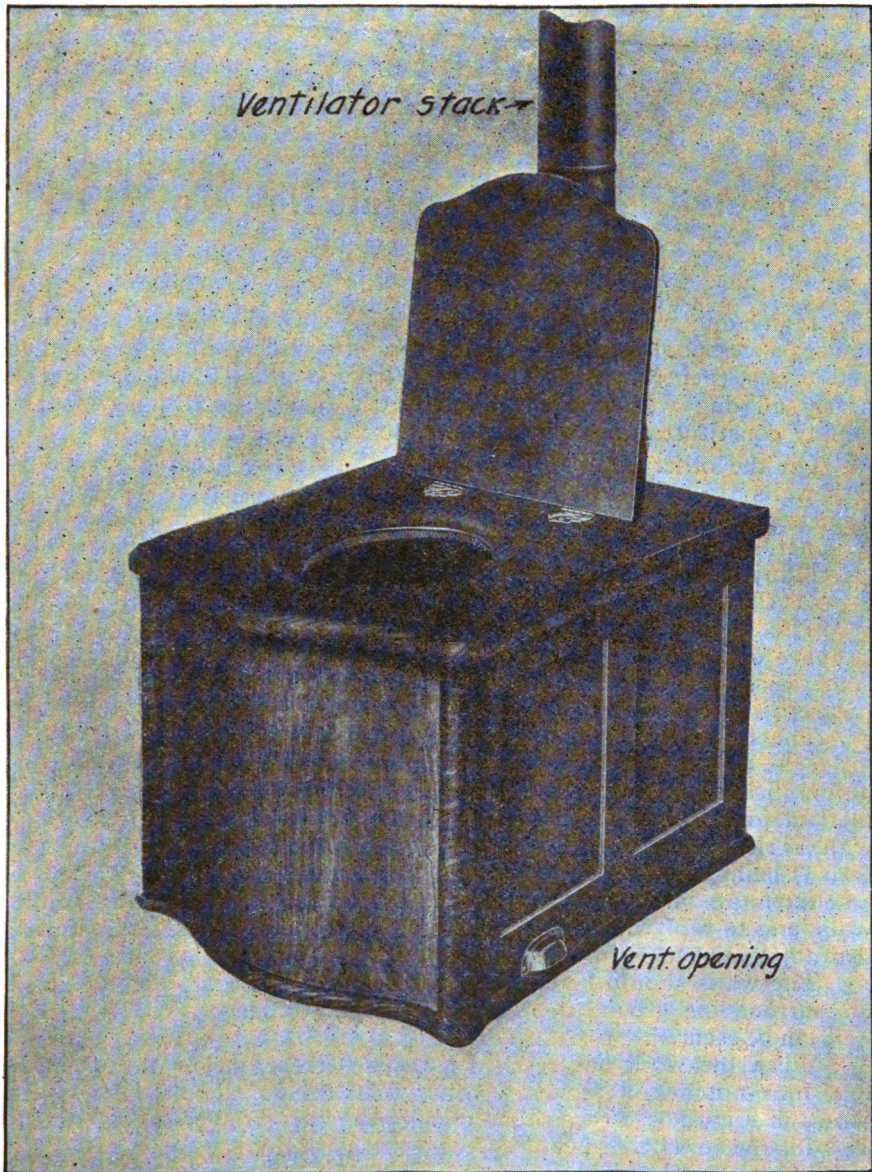


FIG. XX—A Chemical Closet, when properly cared for, affords a great improvement over the privy. The above view shows one of the simplest forms of Chemical Closets on the market.

Protect Your Well Against Pollution.

This Article Tells in Detail How To Do It.

Many dug wells are polluted because they are too near an out-house, a cesspool, a drain or a sewer. In thickly built-up villages and towns (generally those having a population of 1,000 and over) nearly all dug wells are in this category and a good public water supply constitutes the only escape from the danger.

On the other hand it is safe to say that the great majority of dug wells are polluted by the direct entrance of surface drainage at or near the top. Figure 1 shows how this may happen, in fact how it generally does happen.

Many a polluted well may be made wholesome by protecting them as shown in Figure 2.

The following directions for making a well proof against the entrance of surface water are given with the hope that they may be of some assistance to those contemplating the construction of a new or the repairing of an old well.

The first step to be taken with either a new or old well is to make the upper 6 or 8 feet of the walls water-tight. This can best be accomplished by laying the stone or brick walls carefully with cemented joints and then by plastering the back of the wall carefully with a rich cement mortar as the work progresses. Where an old well is being remodelled, it will doubtless be found more economical and far more satisfactory to remove the upper 6 or 8 feet of the old walls and to replace them with new walls properly laid and plastered, than to attempt to repair the old walls.

The walls should be carried up from 6 inches to 12 inches above the surrounding ground in order that proper drainage away from the well can be secured.

When the work has reached a point 6 inches below the ultimate top, four notches, 3 inches wide or thereabouts, should be left, as shown in Figure 3, to receive the 2 inch by 3 inch stringers to serve as a base for the form used in constructing the platform.

In constructing the form for the platform, use 2-inch lumber for the outside walls leaving the ends projecting as shown, so as to be easily removed. The bottom of the form should be made of inch boards laid across the 2 inch by 4 inch stringers and cut to fit closely to the inside and outside of the well. By careful pouring of the concrete,

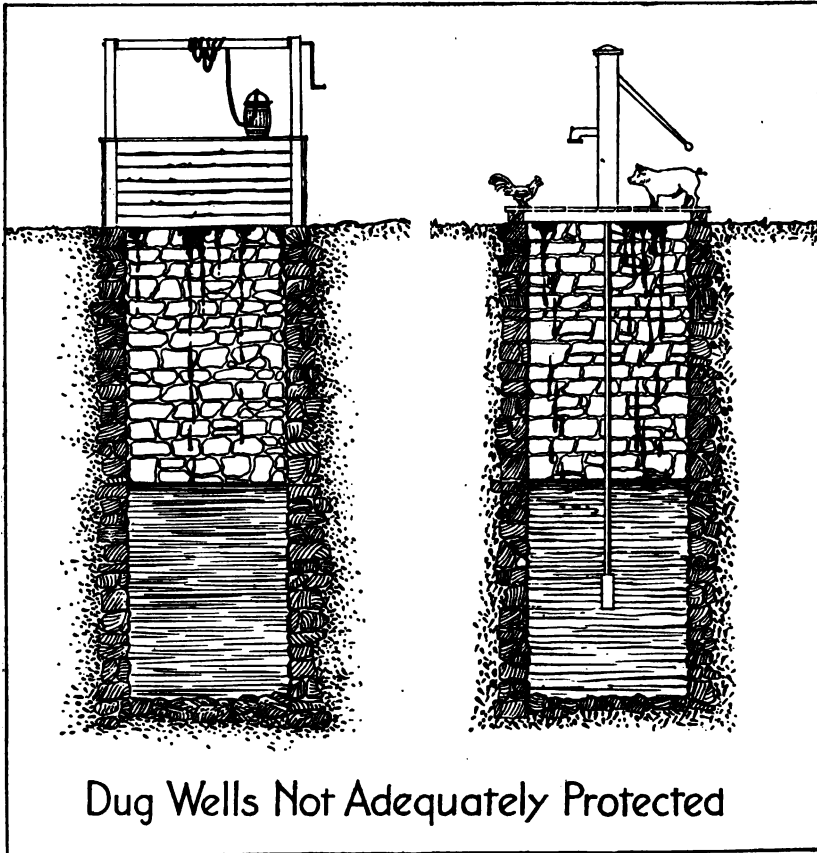


FIGURE 1. A type of dug well very common in Illinois. This picture shows very clearly how the great majority of dug wells become contaminated from surface sources rather than by sub-surface pollution.

the inner boards need not be nailed. The platform should in no case be less than 4 inches thick.

The next consideration is to provide a manhole for entering the well and to leave an opening for the pump. Two types of manholes can be provided, one with cast-iron frame and cover which can be purchased at nominal cost, the other made by providing an opening in the concrete platform itself and pouring concrete inside to form the cover.

In making the latter form of manhole, construct a wooden frame having a top plan of 18 inches by 16 inches and a bottom plan 16 inches by 14 inches. Place this in the proper position adjoining one side of the well. This type of manhole and cover can be made to serve the purpose; it is practically impossible, however, for the average person to secure as water-tight a joint or as neat a piece of work

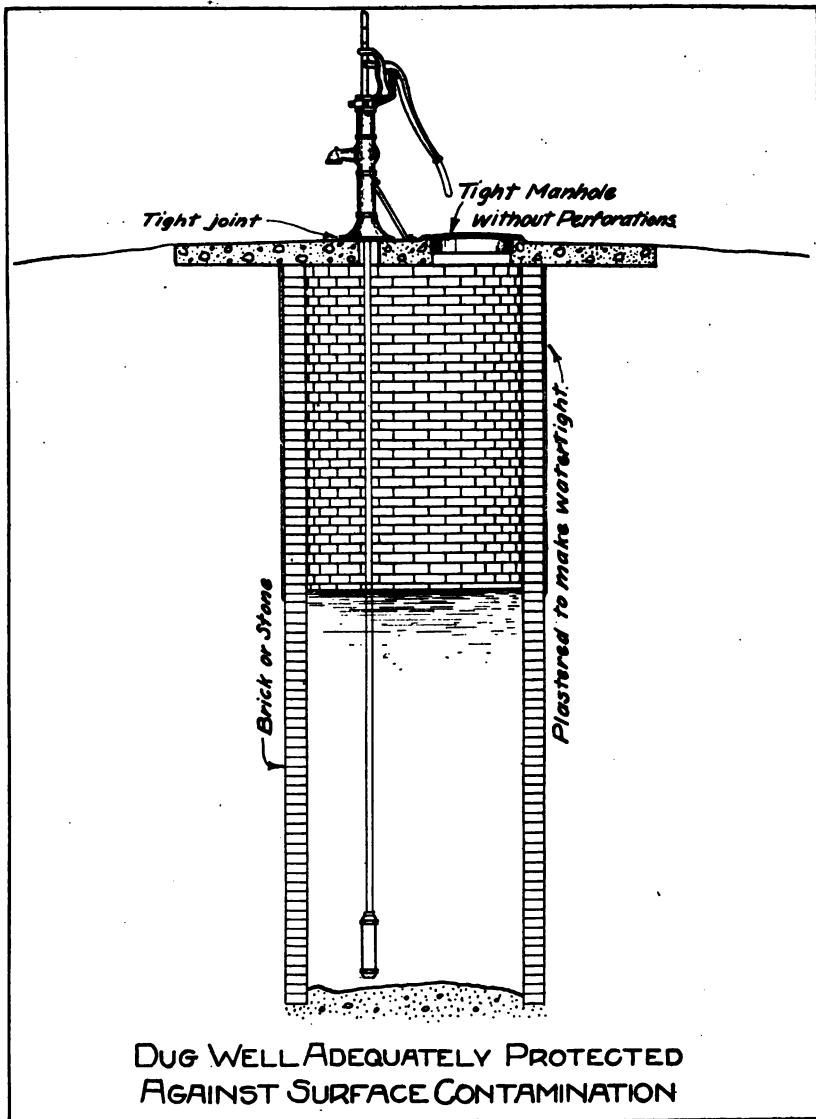


FIGURE 2. An adequately protected dug well. A well like this in suitable soil and placed at a decent distance from a privy, cesspool, drain or sewer, will yield a pure water.

as can be secured with cast-iron manholes, and the latter are to be recommended where the cost is not the deciding factor.

The pump opening can be made by placing a metal or wooden plug in the proper position. The plug should be placed near one

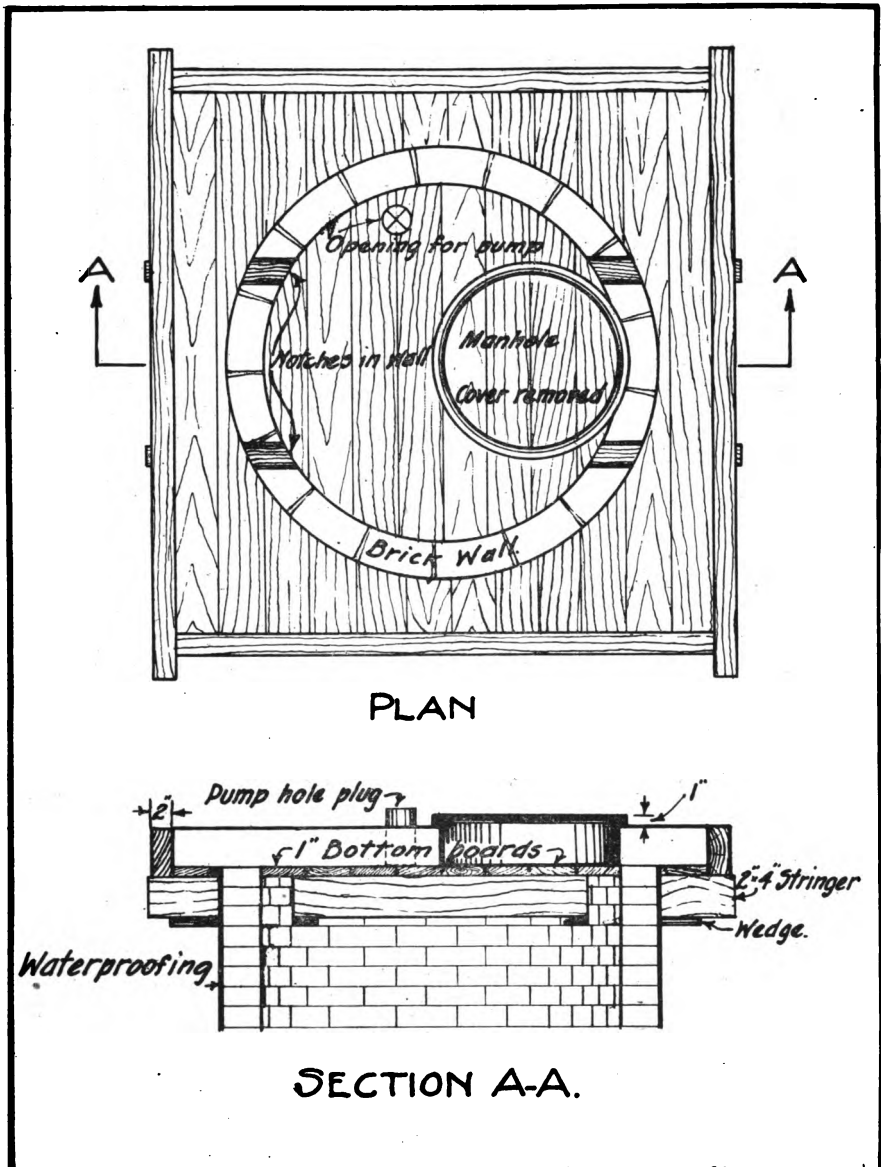


FIGURE 3. This gives a simple working drawing of form work to be used in providing a dug well with a covering that will not permit the entrance of surface drainage.

wall as this leaves a maximum amount of clear space in the well, a feature of considerable importance when work is later done in the well.

In providing for the manhole, attention should be given to placing the frame an inch above the top of the main platform in order that the concrete can be sloped away from the opening. The flat space surrounding the pump opening on which the pump will rest should be also raised a like amount and fastenings provided for the lag screws required to hold the pump.

After the platform frame is complete and the manhole and pump opening provided for, raise the entire form sufficiently to place in

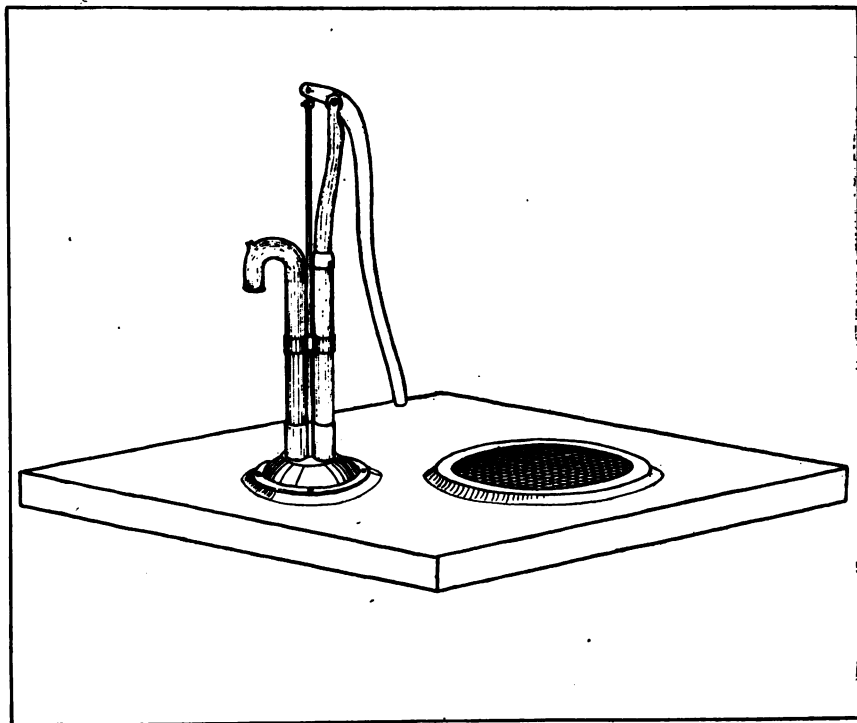


FIGURE 4. The same dug well top, as it should appear.

each notch in the walls a long wedge 1 inch thick which can be readily removed. It will be noted that by using this wedge, the floor of the form is flush or practically flush with the walls.

The pouring of the concrete is next in order. Owing to the relatively small additional cost for using a rich concrete where a lean mixture might prove satisfactory, a mixture consisting of 1 part cement, $1\frac{1}{2}$ parts sand and 3 parts rock is recommended. The concrete should be of a consistency which will allow the cement to reach all corners and should be carefully placed. The top of the platform should be given a smooth sidewalk finish.

In case the iron manhole frame is used, the form for the platform may be dismantled in 10 days in which time the concrete should be thoroughly set. In case the manhole is to be made in the concrete itself, it will be necessary to leave the entire form in place until the manhole cover is poured and has had time to set.

In making the concrete cover, first remove the wooden manhole frame already referred to and line the exposed sides of the concrete with paper making the lining as smooth as possible. This being done, the concrete cover may be poured. A bolt attached to a ring may be imbedded in the soft concrete to be used in removing the cover. After the concrete has set 5 days, the form may be removed.

In dismantling the concrete form, first remove the 2-inch pieces around the platform, next remove the wedges under the 2 inch by 4 inch supports which will permit the bottom boards of the form to be removed.

After the form has been removed, fill the four notches carefully and plaster on the outside as elsewhere described. Next grade in around the well so that surface drainage will be away from the well.

The complete job should appear as in Figure 4.

VOLUNTEER HEALTH SERVICE DURING THE WAR.

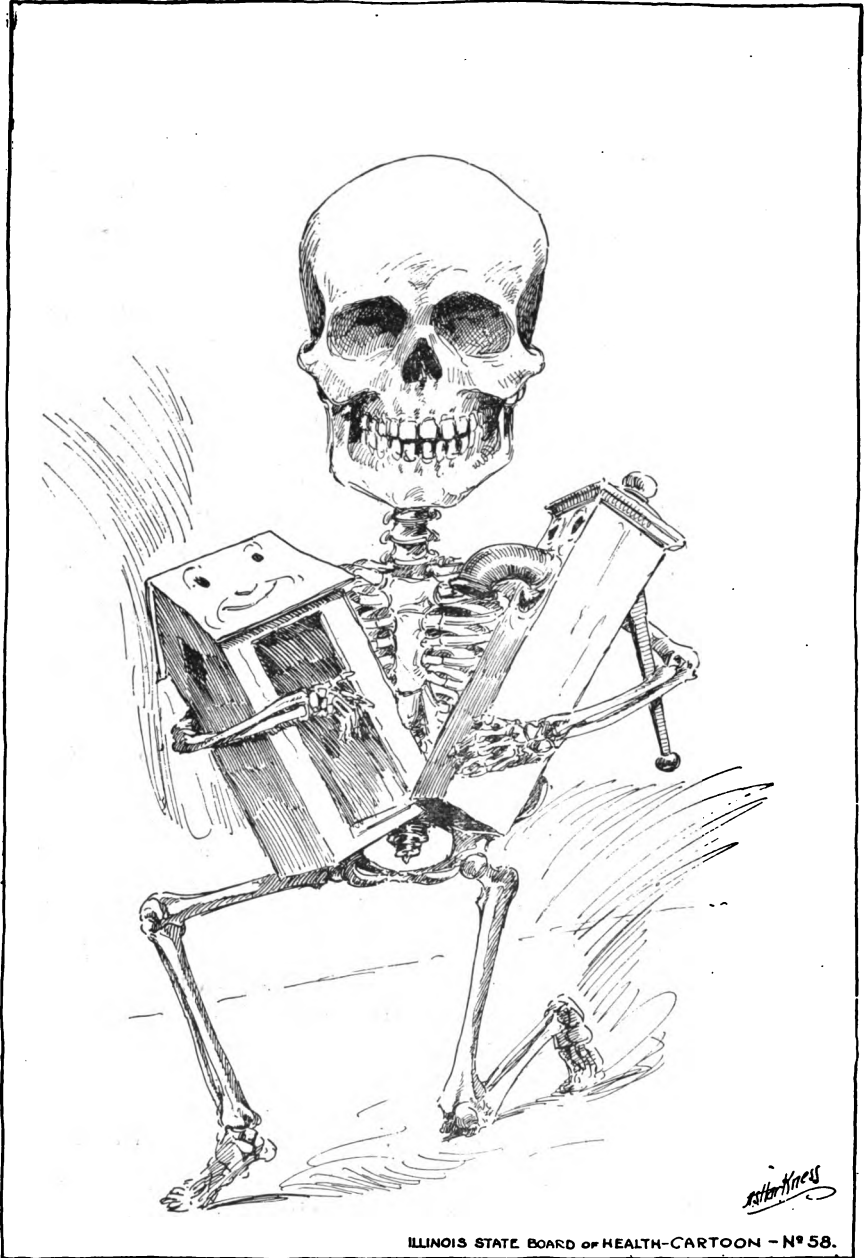
THE SERIOUS MISTAKES on the part of Great Britain at the beginning of the war in accepting for military service men whose special skill and training rendered them infinitely more valuable to the nation in other lines of activity, should serve as a lesson to the United States in preparation for war.

The handling of large bodies of troops, the disorganization of industrial conditions and the communicable disease problem which will be enormously increased by the return of soldiers from the front, will require the services of large numbers of physicians, sanitariums, nurses and public health workers. It is consequently exceedingly unwise to deplete our home forces, already far too small in number, for the purpose of contributing added recruits to the military service which is aided in rallying its forces by patriotic enthusiasm and emotion of the hours.

Sanitarians and health officers will be needed in their own states and in their own homes during the next few years more than ever before and the same is true of tuberculosis nurses, public health nurses, tuberculosis experts, sanatorium executives and others of specialized training.

The disposition of community nurses to enter the Red Cross Nursing Service and to abandon the important work in their home fields to inexperienced persons, should be met by discouragement from both the Red Cross and the public health authorities.

"PALS"



ILLINOIS STATE BOARD OF HEALTH-CARTOON - N° 58.

The Pump~The Privy and PESTILENCE.

ILLINOIS HEALTH NEWS

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ILLINOIS STATE BOARD OF HEALTH OFFICIAL MONTHLY BULLETIN

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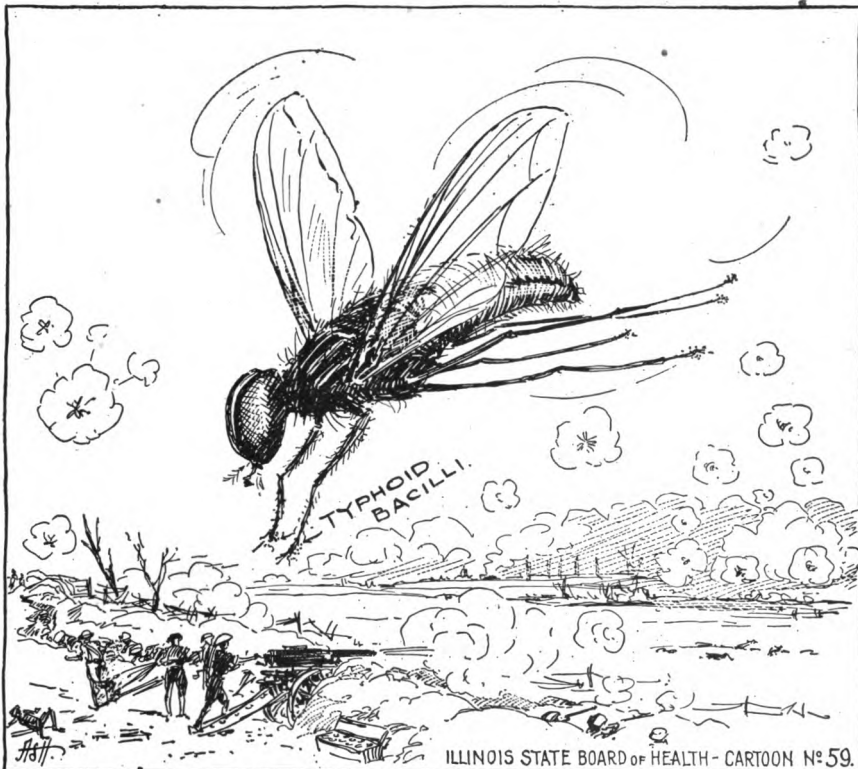
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JUNE, 1917.

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This bulletin will be sent free on request addressed to the Secretary, Illinois State Board of Health, Springfield, Illinois.

VOL. III, No. 6.

JUNE, 1917.

NEW SERIES.

A POLIOMYELITIS CATECHISM.

What We all Ought to Know About Infantile Paralysis.

THE SUDDEN ADVENT of a serious epidemic of infantile paralysis upon the Atlantic seaboard during the summer of 1916 and undue prevalence of the disease in other sections of the country, spread terror and panic throughout the Nation, reminding one of the periodical epidemics of yellow fever in the South before the cause and prevention of that disease were fully understood. Infantile paralysis, or acute anterior poliomyelitis, has created a peculiar condition of fear and dread for several reasons. First, the fatality among the afflicted has been very high. Second, those who do not die are very frequently left seriously crippled. Third, the method of invasion is so insidious that the nature of the disease is frequently not recognized until the damage is done. Fourth, the lack of scientific knowledge as to the exact cause of the disease and the lack of popular information in regard to it, have created the terror which always surrounds the appearance of a strange or mysterious malady.

Public health education has informed the vast majority of people as to the cause of practically all of the communicable diseases and, in most instances, the average intelligent individual has a very definite notion of the means whereby most of such diseases may be prevented. In the absence of this rather definite knowledge about a particular disease, the modern progressive citizen who has become accustomed to knowing the whys and wherefores in matters of public health, finds himself singularly panicky and helpless.

IT IS THE BELIEF of the State Department of Public Health that, serious as infantile paralysis may be, the disease may be robbed of many of its terrors by a clearer understanding of the essential facts about it on the part of the people. That the people are ready and anxious to obtain this information is indicated by the hundreds of letters of

inquiry received by the department during the summer of 1916 and the spring of 1917.

In the following pages there have been brought together all of the questions commonly raised in regard to infantile paralysis, together with the replies and explanations which have been found most satisfactory and most lucid in the experience of Dr. C. W. East, district health officer of the State Department of Public Health, in the large number of popular meetings over which he presided in all sections of the State during the past year.

QUESTIONS AND ANSWERS.

1. *Was not the epidemic of infantile paralysis in Illinois during 1916 largely a "scare"?*

There were about 1,000 cases reported to the State Department of Public Health in Illinois—which were verified by the diagnosticians of either the State or the Chicago department.

2. *How long has infantile paralysis been known to the medical profession?*

It was first differentiated by Heine in 1840. It doubtless was observed before then, but this is about as early as the first accurate knowledge of the disease was published.

3. *When was its communicable character established?*

Since 1880 the conviction has grown that this is a communicable disease. Its epidemic character and inoculation experiments since 1907 have confirmed this conviction.

4. *What is the magnitude of recent epidemics?*

Between 1880 and 1905 less than 1,000 cases were reported in the United States.

During the period of 1907–1910 it is estimated that 20,000 cases occurred. Since 1910 there have been repeated outbreaks. During 1916 there were reported over 12,000 cases in New York State; Illinois about 1,000 cases. Many other states suffered severely.

5. *How does acute poliomyelitis compare in communicableness with other epidemic diseases?*

Of 100 exposed children who have not had measles, over 90 will take that disease. Scarlet fever estimated on the same basis will show an incidence of from 15 to 34. Diphtheria from 8 to 20. Acute poliomyelitis from 1 to 7.

6. *Is the term "infantile paralysis" appropriate to the disease in youths and adults?*

Yes; though it is not always a paralysis of infants it is always an infantile paralysis. That is to say, it always leaves the affected muscles in an infantile conditions for a longer or shorter time.

7. *What ages does acute poliomyelitis attack?*

Seventy per cent of the cases are under five years of age. Persons of each decade of life to past 50 years of age are attacked.

8. *Why is it also called anterior poliomyelitis?*

Polio means gray; *myelon* means marrow; *itis* means inflammation. Therefore "inflammation of the anterior gray marrow" of the spinal cord.

9. *What is the structure of the anterior marrow of the spinal cord?*

It is made up of special cell bodies described as many-poled, each cell with a branch known as the axone and other branches extending outward from each pole and being further branched at their ends—together with supporting fibre work.

10. *What is the use of this marrow?*

It has two uses: (a) It is a nutritional center for nerves and muscles connected with it; (b) it is a transfer station for action impulses originated either at the body surface or in the brain.

11. *Are all of these cells in the spinal marrow used?*

Only a small proportion of them are used in ordinary functions. There is a surplus of cells in every organ. By this surplus we recover from illness or injury and by it we are able to live years instead of days.

12. *What happens if the anterior spinal marrow cells are injured or destroyed?*

It depends upon whether the ones which have been used are the injured ones. If they are injured the muscles to which the associated nerve tracts run lose their power and shrink.

13. *What is known about the cause of infantile paralysis?*

It is a bacterial disease. Ordinary laboratory methods employed in diphtheria, tuberculosis, etc., do not bring the organism within our view.

14. *Where is the virus found in an acute case?*

It is found in the oronasal discharges of a patient and in the bowel excretions.

15. *How is the disease spread?*

(1) By contact with those who have it. (2) Probably by immune carriers. (3) Possibly by insects and beasts which come in contact with patients and their discharges. (4) Possibly also by inanimate objects which all the above pollute. In short the virus of acute poliomyelities probably has not only a carrier, but a variety of carriers, particularly in epidemic times.

16. *What can be done to limit its spread?*

(a) Early diagnosis.
(b) Isolation of the patient, especially from flies and other insects, and contact with any but his immediate attendants.
(c) Disinfection of all discharges.

17. *For how long should isolation be maintained?*

At least thirty-five days from the date of onset.

18. *Have we a serum for either preventive or curative use?*

Not yet, though hopeful studies are being made in behalf of such an agent.

19. *What is the death rate?*

Very variable. It is greater at the extremes of life. In New York City during 1916, the death rate reached 27 per cent. In Illinois it was 12 per cent.

20. *How can the disease be recognized?*

It is usually recognized when paralysis occurs. From this viewpoint the case types may be divided as follows:

(a) Those which show paralysis after a mild and brief onset. (b) Those which are quite ill, some of them severely so, for from two to nine days or more before paralysis is recognized. (c) Those in which no obvious paralysis remains at the end of the acute stage.

21. *Can it ever be recognized before paralysis has occurred?*

The spinal fluid findings when taken with the clinical history are fairly conclusive.

22. *What are the spinal fluid findings?*

Increased quantity. Increased pressure. Fluid clear or slightly hazy. Increase in the cells especially the mononuclears. Increase in albumen and globulin. Reduction of Fehling's solution. No bacteria by ordinary methods of staining or culture.

23. *Can the disease be recognized before paralysis has occurred by those not having laboratory apparatus at hand?*

It can be sufficiently to quite effectively guard the public from contact infection.

24. *Can laymen make diagnoses?*

Laymen are not held responsible for making diagnoses. But they may learn to recognize signs and symptoms which render imperative the services of a trained diagnostician.

25. *What are the most important aids to the recognition of acute poliomyelitis?*

(a) The presence of an epidemic should bring this disease to mind in case of illness, just as in an epidemic of any other disease. (b) A recognition of the fact that this disease belongs to the nervous system.

26. *Is not item (b) too much to expect?*

It is not too much to expect intelligent laymen, not to say physicians, to familiarize themselves with, especially when cases are occurring in our Nation by the thousands almost every year.

27. *Illustrate.*

A cough belongs to the respiratory system; and its severity and continuance require diagnostic aid. A patchy sore throat is a reason for prompt effort for the determination of its character. A skin rash with constitutional symptoms requires its relation to possible exanthematous infection to be ascertained. So an illness with nervous symptoms predominating should command attention.

28. *Why is acute poliomyelitis so often overlooked?*

Because acute nervous diseases are not commonly in mind in the sicknesses with which we are ordinarily familiar.

29. *What is the most striking manifestation of involvement of the nervous system in the preparalytic stage of acute poliomyelitis?*

The predominance of signs and symptoms referable to the nervous system.

30. *How can this be ascertained?*

By making a careful notation of all the symptoms. A quantitative estimate will usually show a majority of findings referable to the nervous system.

31. *Is this method sufficient for diagnosis?*

No. It is sufficient for the protection of the public health. It should lead to complete study that a final diagnosis may be arrived at.

32. *Name the nervous symptoms found in acute poliomyelitis?*

Restlessness, drowsiness, convulsions, twitching, headache, backache pain of limbs when manipulated, stiffness of neck and back.

33. *What other symptoms are found.*

Fever, sometimes diarrhoea, more often constipation, frequently retention of urine, occasional coryza and sore throat.

34. *Are there any special signs which are characteristic?*

The complete picture is convincing and with a predominance of nervous manifestations a number of other findings fall into place as caused by the nervous involvement. The constipation and retention of urine are best explained by the paresis of the musculature of bowels and bladder. Not uncommonly swallowing and speaking are difficult because of the weakness of pharyngeal muscles. Sometimes breathing is affected because of involent of diaphragm or intercostal muscles. Strictly speaking these later conditions are paralytic—though they occur as a rule in what is called the preparalytic stage, and disappear in the majority of cases with the acute stage.

35. *Is there a symptom-group of special significance?*

Taken together, the occurrence of stiffness of the neck, Kernig's sign and marked diminution of deep reflexes are of great significance. To these may be added MacEwens' sign. Their significance increases when taken together with 32, 33 and 34.

36. *In the briefest way possible what may be said as to symptoms which would put an ordinarily intelligent mother on her guard?*

Restlessness with headache will be found more frequently than any other symptoms of easy recognition. Children, except in a small number of severe illnesses rarely have headaches. In adults they are so common that their uncommonness in children is overlooked. In a time of epidemic poliomyelitis the occurrence of headache in a child should occasion the most careful attention to determine its cause, as it occurs in over 50 per cent of cases. To this may be added backache which normally is even more rare than headache in children, though a very frequent accompaniment of poliomyelitis.

37. *What is the treatment for the victim of poliomyelitis from the viewpoint of public health?*

The treatment may be divided into that of the acute and that of the convalescent stage.

38. *How long does the acute stage last?*

Usually about six weeks from the date of onset. The child may not have fever or spontaneous pain during all of this stage. But there is usually some tenderness on manipulation or use for this period.

39. *What is best to be done during the time tenderness remains?*

(a) Rest is very essential. Even though pain is not produced by passive or active motion, time should be given for the healing process to be well established in the spinal marrow.

(b) Prevention of deformity is the second indication during the acute stage.

40. *How is deformity prevented?*

By bracing the member affected in its natural position. This is done by simple supports—as pillows, sandbags, wire or plaster shell supports.

41. *Can retraining of paralyzed muscles correct deformity?*

No. Deformity should be prevented from the first. If it has occurred it should be corrected before retraining is begun. Otherwise the child continues to use the good muscles in their pull against the weak ones, which causes deformity in the first place and tends to increase it.

402. *What are the commonest early tendencies to deformity?*

Foot drop, knee contraction, wrist drop, flexion of fingers and dropping of the shoulder.

43. *How should these be prevented?*

(a) Foot drop: By supporting the bed clothes, and right angle splints of wire, plaster or other well-padded material.

(b) Knee contraction: By a wire splint and gentle manipulation.

(c) Wrist drop and flexion of fingers: By an anterior splint supporting forearm and hand.

(d) Shoulder drop: By support of the arm at right angles to the body and the forearm at right angles to the arm. In young children the most comfortable and effective means is the use of a Bradford frame with right angle support for the arm attached to this.

44. *What is the treatment for the convalescent stage?*

Heat, massage and electricity are used for their effect on the circulation and the muscles. The most important of all treatment is muscle training.

45. *Why is muscle training the most important item in treatment?*

Because it is based upon the ultimate anatomical and physiological facts of the results of this disease.

46. *What are these ultimate anatomical and physiological facts?*

That the destruction left is in the anterior spinal marrow of the spinal cord.

47. *Is not the result seen also in the muscles?*

Only secondarily. The muscles shrink and lose power because their nutritional and motor centers in the anterior spinal cord marrow are injured.

48. *Why, then, can the muscles be restored?*

Because a variety of considerations indicate that there are usually sufficient unhurt cells in this marrow to reestablish function.

49. *What are some of these considerations?*

In cases coming to autopsy unhurt cells are usually found in sections of the cord. The irregular distribution of affected muscles indicates good centers remaining, as commonly muscles functionally related to those affected will be unaffected. The results of muscle training indicate that the paralyzed muscles become reinnervated.

50. *How is muscle training applied?*

First, by a careful anatomical diagnosis of muscles affected. Then by training these muscles only.

51. *If a leg is affected, should not the leg be trained?*

Certain muscles only in the leg are usually affected. The opposing groups are unaffected.

52. *What happens if the leg, in general, is given training?*

The unaffected muscles pull against the affected ones and produce deformity.

53. *Should not a patient with paralysis in a leg muscle be taught to walk?*

No. He should be taught to use the affected muscle first, then he may walk. A child uses all its muscles of locomotion in a recumbent position before it uses them while sitting or standing or in walking. This rule must be invariably followed in the restoration of function after poliomyelitis.

54. *Will passive exercise of the affected muscle restore its function?*

No. Only getting the child to reestablish innervation from its brain will restore function. Passive exercises rightly carried out direct and assist the child. But his will must be enlisted in each effort to use the affected muscle.

55. *When should muscle training be begun?*

Preferably during the first six months.

56. *How long should it be carried out?*

The question is answered by asking how long should the process of teaching a child to write be carried out. Muscle training is an educational process like teaching, writing, sewing or piano.

57. *What are the results of proper treatment in infantile paralysis?*

Practically every victim can be given some form of upright locomotion. The majority can be restored to useful function. Many can be put practically upon a normal basis as far as meeting the demands of life in their station is concerned.

58. *What is the secret of such restoration?*

It is getting the child to find the use of surplus, uninjured cells in his spinal marrow.

59. *Is not this too difficult to be practical?*

No. The child as it grows from infancy to adulthood is always learning to transfer by the nerve tracts its enlarging action purposes from the brain to the muscles. Everything the child learns to do with hands or feet or any of its muscles it accomplishes by this process.

60. *What are the most important considerations for the physician attending a case of infantile paralysis?*

- (a) To prevent deformity.
- (b) To recognize just what muscles are affected, with their function.
- (c) To retrain these muscles only.
- (d) To be on guard against fatigue or undue weight bearing.
- (e) To elicit the patient's mental effort in every attempt to use the weakened muscles.

61. *What can be done to develop shoulder muscles?*

Massage and heat are useful if not overdone. Muscle training is the most efficient as this establishes reinnervation. Granted that deformity has been prevented or corrected all measures are secondary to muscle reeducation.

62. *If the parents and child do not cooperate, can improvement be forced upon the child providing we can manipulate it?*

No more than the ability to write or play the piano can be forced upon the child by manipulation.

63. *Does willingness to take treatment a long time constitute co-operation?*

No. Only getting the child to attempt the definite thing it now can not do is cooperation. The most helpless cripples have been the most willing dupes of the quacks.

SUGGESTED RULES FOR THE CONTROL OF POLIOMYELITIS.

AT A MEETING of representatives of the health departments of the several states and territories, held in Washington during the latter part of April, a committee of which Dr. F. M. Meader was chairman, made a report containing recommendations for the control of infantile paralysis. It is quite likely that the rules and regulations in most of the states of the Union relative to this disease will be remodeled in accordance with the report of this committee. It will be noted that the restrictions on the infected household are less stringent than those now enforced in most communities.

REPORT OF COMMITTEE ON METHOD FOR CONTROL OF POLIOMYELITIS.

Your committee has had the opportunity of examining the epidemiological data prepared in Massachusetts, New York, New Jersey, Minnesota and the winter epidemic in West Virginia during the year 1916-17. Former statements relative to incubation period of poliomyelitis are confirmed, viz: 4 to 14 days, but commonly 7 days. The opinion is also strengthened that this disease is widely prevalent and generally is of the nonparalytic type. The opinion is also strengthened that the infectious agent is transmitted chiefly by contact with a patient or carrier; however, the exact incident of such contact is often difficult to determine on account of unrecognized forms of the disease. Your committee offers the following suggestions—minimum requirements—for the control of poliomyelitis.

ISOLATION.

Isolation is a useful measure for limiting the spread of this disease. It is often, however, without demonstrable effect because of the general prevalence of unrecognized cases and carriers.

On account of (a) the numerous instances where diagnosis is not made until late, so that the patient is not isolated for several weeks after the date of onset and yet no apparent secondary cases appear;

(b) The fact that the longest period observed where a primary case was apparently the source of infection is only ten days;

(c) Epidemiological experience does not justify a long period of isolation;

(d) The satisfactory experience in at least one city and one state with the use of a two weeks' period of isolation for all known cases of poliomyelitis over a period of years,

Your committee recommends:

First: That an isolation period for a patient of not less than two weeks nor more than three weeks from onset be required unless the temperature has not returned to normal in the meantime.

Second: That children of the same household in contact with a patient be restricted from places of public assembly for a period of 14 days from last date of contact, as determined by the health officer.

Third: That an adult of the household, if the patient is properly isolated, may continue his vocation, provided it does not bring him into contact with children at any time.

DISINFECTION.

Your committee recommends that: first, the discharges from the nose, throat and bowels of the patient be disinfected promptly; second, the caretaker shall wash her hands with soap and hot water promptly after handling said discharges; third, the caretaker shall wash her hands similarly before leaving the room occupied by the patient; fourth, isolation shall be terminated by a thorough washing of entire body and hair of the patient; and the room cleaned with soap and hot water, aired and sunned; fifth, sick room precautions should include the usual attention to cleaning and disinfection of eating utensils, personal and bed clothing, rugs, door knobs and other things handled by the patient or caretaker.

PRECAUTIONS FOR PHYSICIANS AND NURSES.

The committee recommends that unless a special covering and gloves be worn (a) the physician and nurse shall so handle the patient that discharges shall not soil their clothing and special care being taken to prevent droplet infection; (b) the physician and nurse shall thoroughly wash their hands before leaving the premises.

HOSPITALIZATION.

The committee approves the removal to hospitals of patients affected with poliomyelitis when proper isolation and satisfactory care for the patient can not be secured in the home; but the committee believes that during the early stage of the disease the patient needs rest in bed and transfer to a hospital may be detrimental to his welfare.

OTHER SUGGESTED MEASURES DESIGNED TO CONTROL THE DISEASE.

(a) The committee does not recommend the use of travel certificates, but travel and contact with children should be discouraged.

(b) Surveillance for persons coming from infected districts, in the opinion of your committee is not necessary, unless the person has been definitely exposed to infection.

(c) The most effective agency in the control of this disease is the employment of public health nurses who, in cooperation with the physi-

cian, will teach sick room precautions, the necessity for rest in bed, and the need of proper support for affected parts.

(d) Expert diagnosticians should be provided and the use of lumbar puncture urged.

(e) Food, especially such as is consumed uncooked, should be considered as a possible means of transferring the infectious agent and appropriate measures should be instituted to protect the public during an outbreak.

(f) Where poliomyelitis occurs in a school, your committee advises that the school be not closed, but that daily medical supervision be instituted.

(g) Efficient screening and the use of approved insecticides should be employed so that insects shall not have access to the patient or his excretions.

(h) Household pets should be excluded from the sick room.

(i) In the presence of poliomyelitis a search for, and a careful examination of, all ill children should be made. All children having fever should be isolated pending the diagnosis.

(j) Prompt reporting of all recognized or suspected cases, personally or by telegraph, or by telephone, is essential, in addition to the written report required by law.

(k) Weekly reports by state and territorial health authorities should be made to the United States Public Health Service.

Respectfully submitted

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IRVING A. WATSON.
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S. L. JEPSON.
J. P. LEAKE, U. S. P. H. S.
DAVID N. ROBERG.
F. M. MEADER, *Chairman*.

No one has ever invented automatic self-acting health regulations. The best law on earth has to be enforced to make it effective.

* * *

Publicity is one of the most effective aids of a health officer, but efficient health administration can not be made up entirely of conversation and printer's ink.

* * *

Dr. Herman M. Biggs, Commissioner of Health of the State of New York, who recently visited France to study the tuberculosis problem of that war-ridden nation, reports that 160,000 French soldiers are now actively tuberculous with the disease spreading extensively among both the military and civil population. According to Dr. Biggs, if the war were ended to-day, France would find herself struggling under the burden of a half million of her people incapacitated by injuries of war and a like number dependent upon the community on account of tuberculosis.

THE KING IS DEAD. LONG LIVE THE KING!

THIS IS THE LAST NUMBER OF HEALTH NEWS to be issued as the Bulletin of the Illinois State Board of Health. On July 1, according to the decree of the General Assembly and approved by the Governor, the State Board of Health will be quietly put to death. On July 1, the State Department of Public Health of Illinois will be born. The newly-created Bureau of Vital Statistics will start with an even score in its birth and death records.

HEALTH NEWS, without change in form, appearance or purpose, and merely by a few strokes of the proofreader's pencil, will cease to be the mouthpiece of the board and will become the spokesman for the department.

IF ONE CAN IMAGINE the old office clock pausing for a few moments in the middle of the twelve strokes indicating midnight of June 30, one can also imagine the few moments in which HEALTH NEWS could be an independent publication, the bulletin of nothing and the organ of no one. If such a period of editorial independence should come at the hour when the old regime gives way to the new, HEALTH NEWS would address itself first to the old master and then to the new master, somewhat after the following manner:

TO THE STATE BOARD OF HEALTH, HEALTH NEWS would say: "You have served a useful purpose as one of the pioneers in the Nation in safeguarding the lives and health of the people. You have laid the foundation upon which the important superstructure of modern health organization in Illinois may be built. The one who guided your footsteps in your infancy, who did so much to advance the interests of public health throughout the United States and who gave standing to Illinois' first efforts in sanitary work, could he be here to-day, would see much of which to be proud in your forty years of activity and yet, if John H. Rauch were here to-day, he would commend your passing on that your stronger and more promising successor might be permitted to live.

"THINGS HAVE CHANGED since Rauch assumed charge of the Illinois State Board of Health on July 1, 1876. At that time there was no tubercle bacillus to cause tuberculosis, and that master scourge of men was a "will of God disease," transmitted from parent to child and probably caused, to a large extent, by drafts and night air. No mosquitoes were engaged in bearing the plasmodium which now causes malaria. That disease was due to the miasm which rose from bodies of water or from the moist, fresh-turned soil. The Klebs-Loeffler bacillus had not been born and diphtheria antitoxin was as fanciful a notion as the dreams of the alchemists of old. When Asclepiades, performed the first tracheotomy for the relief of diphtheria a century before the birth of Christ, he knew almost as

much of the essential truth about the disease as you did when you took your job in Illinois. There was no typhoid bacillus during the days of your childhood, no spirochaete pallida, no stegomyia fasciata to transmit the organism of yellow fever, no vaccine to prevent typhoid fever, no serum to check the ravages of rabies. Armed alone with a diminutive vaccine point, inherited from the illustrious Jenner and sulphur matches with which to burn "fomites" and ignite your pot of sulphur like frankincense to indignant gods of human ills, you went fearlessly and cheerfully out to eradicate disease from Jo Daviess to Alexander—from Galena to Cairo.

"YOU WERE A HUSKY AND LUSTY INFANT and you grew more rapidly than the health youngsters of the households of the neighboring states. You gave promise of wonderful development and great strength in your mature years. Then came the ailment of childhood. You believed then that you might just as well have these diseases and be through with them. You now know that diseases of childhood are largely avoidable. But these ailments came and through them you suffered some. At times you were sickly, a little weak and a trifle anemic. Your growth was stunted somewhat and that wonderful mental and physical efficiency of which you gave promise in the days of Rauch was not always present in you.

"However, as the years went by you became the average man, stronger in some traits and characteristics than your fellows, weaker in others. And so, in turning over your job to your successor, you must admit faults and shortcomings, while even a proverbially unappreciative public will give you credit for splendid things that you have done. Without what you have done in the past it would be impossible for your successor to expect to accomplish that which now seems all but realized and he must recognize in your history the sturdy, if sometime stumbling, progress of the pioneer."

THESE THINGS HEALTH NEWS WOULD SAY, because you will bear in mind that in these midnight moments of June 30, HEALTH NEWS is presumed to be an independent publication and an exponent of free speech. Further, HEALTH NEWS though once under another name, has watched the progress and told of the progress of the State Board of Health through many years. HEALTH NEWS has known the family secrets, has bragged of the great accomplishments and has deplored the failures—or, has remained silent about them and talked of other things.

TO THE STATE DEPARTMENT OF HEALTH, HEALTH NEWS would say: "You were born in a day of brilliant possibilities. You have good and creditable antecedents, though they were not in all things great. You may profit by the mistakes of your predecessors. The unregenerate may insinuate that you were sired by Consolidation Bill and damned by Madam Polly Ticks, but to those who have been familiar with the public history of Illinois there can be

no mystery about your parentage. It is one of which you have occasion to be proud.

“**T**HE FAMILY OF ILLINOIS is one of the first families of the Nation. It has wealth, strength, mental power and enthusiasm and all these things are at your disposal if you make good use of your modest patrimony. Great opportunity brings great responsibility. The laws and the rules which govern your actions are broader than any others the Nation has ever known. If you do meritorious work we shall feel that the people have a right to expect it of you. If you do not do creditable work we shall feel that it is inexcusable, that you have brought misfortune not only upon the people of Illinois but upon the health departments of other states which are now seeking to begin their lives anew under such favorable conditions as the people have given you.”

THE OFFICE CLOCK has resumed the remaining six strokes which mark the beginning of the first day of July.

HEALTH NEWS is no longer an independent publication. It is the mouthpiece of the State Department of Health. It has no personal opinion to express of its old master or its new. Over the door of Room 1 at the Statehouse hangs the familiar legend:

“THIS PLACE HAS CHANGED HANDS.”

The King is Dead! Long Live the King!

A coat of paint and a rose-clad trellis will not make the old-time privy a safe or sanitary institution.

* * *

With no definite knowledge to the contrary, it may be safely assumed that any well water is polluted.

* * *

It is hoped that the military slacker will come into such disrepute during the war that the civic and community slacker will be regarded as disreputable after the war.

* * *

Reports from the various towns throughout the State seem to indicate that in spite of the excitement of the war, the interest in infant welfare work has not diminished. All of the baby conferences were successful.

* * *

On account of the acute need for salvarsan, both for military and civil population, a bill has been introduced in Congress abrogating all patents on this product.

* * *

The State Health Department of Massachusetts in conjunction with the Harvard Infantile Paralysis Commission proposes raising a fund of one hundred and fifty thousand dollars to fight poliomyelitis during the present year. The first outbreak of this disease of the season has been reported at Sparrows Point, Maryland.

THE STATE DIAGNOSTIC LABORATORIES.*

By GEORGE F. SORGATZ, M. D., Bacteriologist in charge State Diagnostic Laboratories, Springfield, Illinois.

The matter of a diagnostic laboratory is undeniably one of the most important discussions that can come before a public health association. The reason for this is apparent in that the laboratory furnishes the only accurate and reliable diagnosis for many of the communicable diseases.

In diphtheria and other forms of sore throat, in typhoid, dysentery, malaria, and meningitis which are under the supervision of health departments, and in other diseases which should be under supervision, the physician is coming more and more to depend upon the laboratory findings for his decision in treatment. But the physician can not wait long for his laboratory report. If he is called to see a case of sore throat, he can not wait a day or more to learn the result of a cultural examination, if he would treat the case successfully. He must know whether or not it requires antitoxin and if it does require antitoxin, the curative dose should be administered at once. One may say, "Why not use antitoxin in all cases of sore throat with membrane?" If this were done, the expenditure for antitoxin would have to be greatly increased and no good would result.

Here is an opportunity for the diagnostic laboratory conveniently located. It can supply a diagnosis of the condition in from eight to twelve hours after the specimen is received for examination. Now eight hours is long enough to wait in a suspicious case—it is too long in some—but if an accurate diagnosis can be furnished within this time for every case of sore throat, there will be very few bad results in the treatment of diphtheria. But a specimen can not be twelve or twenty-four hours in getting to the laboratory if an early diagnosis is desired. With the present demands upon the postal service, it is not infrequent that packages mailed only a short distance from the laboratory are a day or more reaching the laboratory.

To facilitate early diagnosis, the State Board of Health has established four branch laboratories which examine swabs for diphtheria. This is not enough. The patient in one locality is entitled to as much State assistance as the patient in another, but there are many communities that are situated at such a distance from the laboratory that by the time a specimen is sent and the report returned, the patient is too far gone for treatment or up and about. And these are not small communities. Among the larger cities at a distance of more than fifty miles from a laboratory, are Cairo, Murphysboro, East St. Louis, Quincy, Freeport, Rockford, Rock Island, LaSalle, Bloomington and Peoria. No reasonable person can deny that large communities such as these need more efficient assistance than can be furnished by a laboratory fifty or more miles distant.

* Presented before the Illinois Public Health and Welfare Association, Springfield, April 12 and 13, 1917.

To dwell further upon the need of more convenient diagnostic laboratories seems unnecessary. We recognize this necessity. Let us see what can be done about it.

Some states have met this condition and made a more or less satisfactory disposal of it by the establishment of branch laboratories. In most of the states these branch laboratories are supported by and under the entire control of the state and do state work exclusively.

Wisconsin has adopted the plan of giving state aid to such laboratories as comply with the requirements of the State Board of Health. The sum of \$500 is given to assist each laboratory that provides proper quarters and efficient workers, upon condition that the laboratory will do public health work for the surrounding community. This assistance is given only to communities that employ a full time health officer.

There are some features about this plan that are not desirable and would, in fact, make it impracticable for many communities.

The plan in operation in this state has been to pay the four private laboratories for the number of specimens examined and has undoubtedly been of great service to the communities nearby. But as has been shown, there are many large cities and many localities that are in need of better service.

Then too, the branch laboratories should make examinations other than for diphtheria. They should be prepared to do all kinds of emergency work and to make reports as soon as possible and to furnish the proper information in these conditions.

Now there are other activities and most important ones too, that can not be handled satisfactorily in a small laboratory. The control of typhoid and diphtheria carriers, the diagnosis of rabies, syphilis, and other diseases that do not provide means for their early or easy identification.

There are the great problems of experimental medicine that can be done only in a laboratory whose existence is provided for by the state or some other large institution.

Other states, smaller and not as rich as ours, are maintaining research laboratories and are doing work that is of great value to the entire Nation. In this matter, the State of Illinois can not afford to be dependent upon the work done by other state laboratories.

If there were not other and better reasons, our pride should make us unwilling that others carry our share of the load.

The central laboratory should be enlarged to meet any demands that could be made upon it. But this can be accomplished only by extensive additions to the laboratory. More trained workers must be employed, the equipment must be increased to meet requirements and all must be united in a strong cooperative bond with the branch laboratories so that together they may form a division ready at all times to do the work required of them in a manner that is a credit to the Department of Health of the State of Illinois.

In Kansas, 13,836 cases of measles were reported for the entire year 1916 and 6,162 cases for the single month of March, 1917.

TUBERCULOSIS AND PREPARATIONS FOR WAR.

IN A CIRCULAR recently published by the Illinois Tuberculosis Association and written by its president, Dr. George Thomas Palmer, who, incidentally is also a member of the subcommittee on Tuberculosis of the Council of National Defense, attention is called to the tremendous problem which tuberculosis has become to all of the warring nations of Europe.

France and Belgium have suffered in the extreme. Austria, Hungary, Germany and Italy are experiencing prevalence of tuberculosis such as they have not known before. Even England, where the disease is controlled more effectively than in any other great nation and better, incidentally, than in the United States, the war problem of tuberculosis is a great one for which the nation was quite unprepared.

In this circular the experiences of the various nations are thoroughly reviewed and the plan of action for the United States is suggested not as the author's program, but as the plan which other nations are now adopting and adopting far too late.

THE REASONS for the enormous increase in tuberculosis among the warring nations, set forth by Dr. Palmer are:

1. Failure to appreciate the importance of tuberculosis under war conditions.

2. Failure to meet the normal tuberculosis needs prior to the war.

3. Failure to detect tuberculosis among soldiers at the time of enlistment.

4. Unusual tendency of tuberculous persons to enlist and to conceal their illness.

5. Conditions in active service fanning incipient or dormant tuberculous infection into active disease; physical, nervous and emotional overstrain, loss of sleep, inadequate food and damp, crowded and insanitary quarters.

6. Enormous increase of tuberculosis in prison camps due to mental and emotional overstrain, insufficient food, overcrowding and insanitary conditions.

7. Obsolete methods of detecting tuberculosis among the men in active service whereby the disease is recognized only in an advanced and often incurable stage.

8. Inadequate hospital and sanatorium facilities necessitating the return of soldiers with active tuberculosis to their families, thus spreading the disease in the civil population.

9. Increase among the poorer and working classes of the civil population owing to the strain of war, industrial speeding-up and scarcity and prohibitive price of food.

10. Increase among the families of soldiers due to the necessity for women engaging in gainful occupations, mental anguish, grief and anxiety and the prohibitive cost of food.

11. Inability to meet the tuberculosis needs of the civil population and of the returned soldiers on account of the drafting of expert physicians and tuberculosis nurses for military service.

TO MEET THE WAR NEEDS of the United States and to avoid the mistakes of the European nations, State and local health organizations should not only maintain their integrity but should expand their forces.

Based upon the unfortunate experiences of European nations, the logical war program for the control of tuberculosis in the United States in Dr. Palmer's opinion, may be summarized as follows:

1. Full appreciation of the importance of tuberculosis in war by the military authorities, tuberculosis organizations, health officials, civil officers and the people.

2. The immediate development of antituberculosis machinery with dispensaries, visiting nurses, hospitals, sanatoria and farm colonies in every large community and in every county.

3. Improvement in methods of examining recruits at enlistment and of all soldiers including:

(a) Employment of experts for the examination of suspected cases.

(b) Reexamination of enlisted men in mobilization camps.

(c) Closer observation of enlisted men in the field for the earlier detection of evidences of tuberculosis.

(d) The adoption of a list of "suggestive signs" or "danger signals" of tuberculosis which will prompt army medical officers to refer soldiers for more complete examination.

4. Closer scrutiny to detect tuberculous individuals who enlist and attempt to conceal their illness.

(a) Cooperation between recruiting officers and local authorities to secure previous tuberculosis histories.

(b) Thorough tuberculosis surveys of all communities by health officers or tuberculosis associations to obtain this information.

5. The elimination, by every possible means, of tuberculous persons from among those who will be subjected to the strain of military service.

(a) Rigid examination of recruits.

(b) Reexamination in concentration camps.

(c) Periodical reexamination in service.

6. Adoption of means of early diagnosis of tuberculosis and acceptance of the fact that the consumptive who becomes physically incapacitated or who has bacilli in the sputum is usually advanced and is often incurable.

7. Immediate establishment of tuberculosis hospitals and sanatoria in every large community and county not adequately provided at the present time and the increase in capacity of all existing institutions.

(a) Establishment of tuberculosis hospitals in every county or group of counties for the care of active and advanced cases.

(b) Development of tuberculosis departments in all general hospitals. While probably not advisable under ordinary conditions, this will prove a satisfactory war time measure if under

the supervision of physicians and nurses experienced in tuberculosis.

- (c) Creation of sanatoria in all counties not having same.
- (d) Increase in capacity of all existing sanatoria.
- (e) Industrial or farm schools in connection with sanatoria.
- (f) Farm colonies for those discharged from sanatoria.
- (g) Development of dispensaries and nursing service for after-care of patients in farm colonies and in their homes. There should be at least one dispensary with nursing service in every county or large community.

(h) Increased facilities of all existing dispensaries and nursing service.

(i) Introduction of instruction on tuberculosis in nurses' training schools.

8. To control tuberculosis in the civil population it will be necessary to:

(a) Guarantee reasonable food supplies for all people, through Federal control of prices or increased public and private charity.

(b) Supervision of living conditions and working conditions of industrial workers.

(c) The provision of out-of-door schools with supplementary feeding for school children in all communities.

(d) Dispensary and visiting nurse service available to the civil population.

(e) Medical supervision and physical examination to detect open tuberculous cases in industrial communities.

9. The control of tuberculosis among the families of soldiers may be brought about by:

(a) Liberal provision by public or private charity for wives and children of soldiers.

(b) Liberal pay for women who are employed.

(c) Establishment of day nurseries for the children of working women.

(d) Supervision of factory and working conditions.

(e) Provision of nourishing food in nurseries, schools and factories if found necessary.

(f) Retention of tuberculous soldiers under military control until the case is no longer open.

10. To intelligently meet the technical side of the tuberculosis war problem by:

(a) Withholding physicians and nurses engaged in active tuberculosis work from military service until an urgent need may arise.

(b) Enlisting the interest of county medical societies to induce one physician in every county or large community to perfect himself in the diagnosis and treatment of tuberculosis.

(c) The employment of a community nurse with tuberculosis experience in every county or large community.

(d) The special training of graduate nurses in tuberculosis work.

(e) The creation of classes of intelligent lay-women to supplement the service of graduate nurses in instructive and nursing work among the tuberculous.

(f) The encouragement of young physicians and medical students to affiliate themselves with established dispensaries to increase their efficiency in tuberculosis work.

COMMENTING UPON this war-time antituberculosis program, the Chicago *Herald* speaks as follows:

"Dr. George T. Palmer's appeal for special preparedness against the increase of tuberculosis during the war finds striking support in the experience of other countries. On March 20, Lord Shaughnessy, president of the Canadian Pacific Railway Company, and one of the British organizers of victory, thus described conditions in the Dominion:

"As many Canadians have been killed at home by tuberculosis since the war began as have been killed by the war itself. Yet it is an entirely preventable disease. If we stop its ravages we shall more than make up for the ravages of the war. If we stay in the rut and let this enemy go on killing our people at home as fast as the Germans can kill at the front, then the less we talk the better."

"How ready Illinois is to combat this evil is seen in the statement that with 8,000 deaths annually from tuberculosis there are in all the State probably about 2,700 beds for the use of such sufferers. Lord Shaughnessy's challenge to Canada is applicable also to Illinois."

PROTECTION OF MOBILIZATION CAMPS.

A BILL in the Illinois General Assembly, which will probably be passed before these pages are printed, provides for the sanitary protection of mobilization camps under the supervision of the State Department of Health. This law gives the Health Department jurisdiction over all territory lying within one-half mile of military camps or reservations and authorizes the department to abate all nuisances or unsanitary conditions at the expense of the property owner. If the nuisance is found to exist on public property the expense of abatement is chargeable to the political division controlling the property, be it township, village, city, county or State.

In spite of most rigid sanitary precautions taken by the military authorities in concentration camps, there is always an element of danger so long as unsanitary conditions are permitted to exist on adjacent or nearby property. This Illinois law, if passed, will be of the greatest importance during the coming year during which troops will probably be quartered in many sections of the State.

The most distinguished citizen in every community is old General Public and yet he often employs the most inefficient sort of doctor, or even no doctor at all to care for his physical ills.

LETTERS TO THE DEPARTMENT.

D. M. B., of E., writes as follows: "Send me printed matter as to best methods of maintaining healthy surroundings in country and village through the summer months. What chemicals are best to use in the sanitary closets?"

Answer—"I desire to advise that so far as E. is concerned, there are two important menaces to the public health, namely, (1) pollution of shallow wells; (2) dissemination of disease from unprotected privies through the agency of flies. This department is of the conviction that in built-up communities like E it is practically impossible to prevent a degree of soil pollution that will endanger the quality of water drawn from private wells, though much can be done to lessen this danger by elimination of drains, cesspools and leaching privy vaults. In most towns, however, the difficulties in the way of accomplishing this are practically insuperable. Many drains have been laid years ago and their location is unknown, but they go on polluting the soil just the same. The only adequate solution of this problem is the installation of a public water supply of assured good quality.

As long as privy vaults are not fly-tight, there will always be a serious menace from fly-borne disease. In the army, the prevention of access by flies to fecal matter is regarded as the very first essential to camp sanitation, but somehow or other, it has been impossible to date to thump this basic principle into the heads of the general public. It is perfectly practicable to build privies that are fly-tight at relatively small cost, as indicated in the pamphlet which is being sent you under separate cover.

For chemical closets which are quite satisfactory when carefully maintained, a strong caustic solution is generally used. Different manufacturers use different chemicals. Any strong germicide such as those that are now being obtained from coal tar products are satisfactory. Strong causticity is desirable apparently as a means for disintegrating the solid matter. With a perfectly fly-tight privy, chemicals are not necessary, though they may be desirable as deodorants. Powdered slaked lime is best and cheapest for this purpose.

Mrs. H. L., of L., writes as follows: "Would you please send me some information in regard to sanitation of cellars? We have a small, dry, well-ventilated cellar, clean and no decaying vegetable matter. Have sprinkled chloride of lime under fruit chest and the walls are white washed. Would such a cellar be a sanitary place to keep milk and butter during the summer months? What conditions breed typhoid fever germs in a cellar? Would you also please send me a "fly" bulletin?"

Answer—"From the description of your cellar, we would conclude that it would be a suitable place to keep milk and butter during the summer months. Cleanliness and dryness are the main considerations. I would use chloride of lime, but sparingly, inasmuch as the odor of this may be imparted to any food materials (especially butter and milk) that are kept in the cellar.

"Cellars are responsible for practically no typhoid fever. Typhoid fever is acquired solely and only by swallowing the germs of the disease

with food and drink and the principal agents in carrying the germs are dirty fingers and dirty flies. As typhoid germs are voided from the body almost entirely with the discharge of the bowels and bladder, it becomes apparent that it is primarily a filth disease, therefore, make the outhouse fly-tight and water-tight. Fly-tight to prevent flies from carrying the fecal matter to the kitchen and dining room and water-tight to prevent its percolation through the soil into the well or cistern."

As an aid in practical education for the prevention of hay fever a company has been organized in New Orleans which mounts and sends out collections of the seven common hay fever weeds. It is believed that if the people come to recognize the weeds which have a bearing on hay fever, a special warfare will be made against these weeds and the disease will be materially reduced. This same company also supplies insects which transmit disease or affect agricultural pursuits, such as the yellow fever mosquito, the Mexican cotton boll weevil, the cattle tick, the Argentine ant and the house fly. Other insects are supplied for classroom and dissection work. The company furnishes adult male and female specimens, pupae, larvae and eggs.

TORNADO AT MATTOON AND CHARLESTON.

On the morning of May 27, the State Board of Health was advised of a cyclone which had destroyed the northern part of the city of Mattoon and a large portion of Charleston, Coles County. By 4.30 in the afternoon Dr. Drake, secretary of the State Board of Health, accompanied by four medical health officers, two sanitary engineers and two sanitarians were on the ground.

A preliminary survey was made late Sunday afternoon for the purpose of locating all cases of communicable disease, particularly those in the storm-swept section, who might have been removed to other portions of the town and to locate any persons who might have been exposed to contagion.

During the inspection two cases of smallpox were found, not heretofore quarantined, together with nine cases of whooping cough which had not been previously reported, also one case of scarlet fever.

Late Sunday and during the day Monday animals were removed from the storm-swept districts and all exposed privy vaults were limed and filled. In cooperation with the military authorities and the Red Cross, a house to house canvass was made to locate all persons removed from the destroyed homes and to get in touch with those who were sick or injured and who had not received medical attention. The care of the sick and injured was entrusted to the local medical organizations.

A great amount of food and clothing was sent to the stricken cities and was carefully supervised. All clothing was thoroughly disinfected before it was distributed. No food was permitted to be distributed which was not in good condition.

The total number of deaths in the two towns was 98, with 414 injured. 717 homes were completely destroyed and 370 partially destroyed. 3,400 persons were made homeless.

THAT NEED NOT BE.



ILLINOIS STATE BOARD OF HEALTH — CARTOON N°60

**MODERN MEDICINE MAY PREVENT POLIOMYELITIS.
IT MUST PREVENT ITS AFTER EFFECTS.**

ILLINOIS HEALTH NEWS

"THE GREATEST WEALTH OF THE COMMONWEALTH IS HEALTH"

ILLINOIS STATE DEPARTMENT OF PUBLIC HEALTH OFFICIAL MONTHLY BULLETIN

[Printed by authority of the State of Illinois.]

PUBLISHED AT SPRINGFIELD.

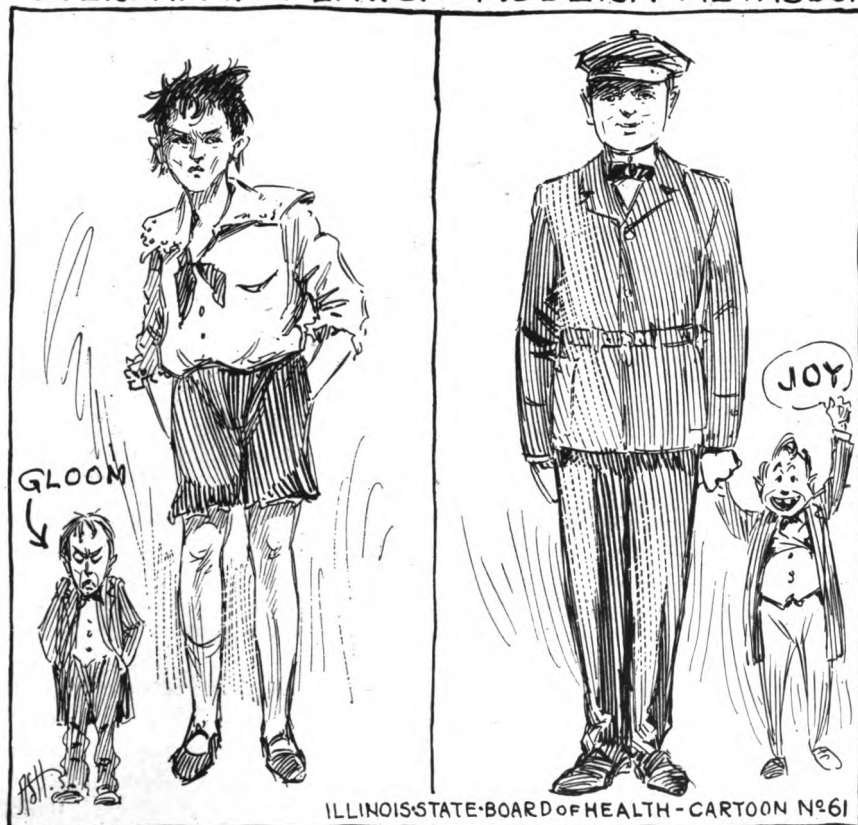
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Vol. III, No. 7.

JULY, 1917.

New Series

THE ILLINOIS STATE BOARD OF HEALTH. BEFORE AND AFTER JULY 1ST 1917. ILLFITTING AND OVERLAPPING LAWS. EFFICIENT AND MODERN METHODS.



ILLINOIS HEALTH NEWS

[Printed by authority of the State of Illinois.]

This bulletin will be sent free on request addressed to the Director, Illinois Department of Public Health, Springfield, Illinois.

VOL. III, No. 7.

JULY, 1917.

NEW SERIES.

RULES FOR THE CONTROL OF TUBERCULOSIS.

ONE OF THE FIRST ACTIONS of the State Department of Public Health after its organization on July 1, 1917, was the adoption and promulgation of rules and regulations for the control of pulmonary tuberculosis or consumption. While tuberculosis has been a reportable disease in Illinois since February, 1915, the health officers of comparatively few of the municipalities and communities have enforced this provision of the general rules concerning communicable diseases.

The tremendous importance of tuberculosis in the military forces of the present war and the serious problem which this disease will become in Illinois if the war continues, render it imperative that the provision for reporting tuberculosis shall be no longer ignored in any part of the State.

FOR SOME INCONCEIVABLE REASON tuberculosis has been more generally neglected in Illinois than in any other of the larger and more important states of the Union. Illinois has had no State tuberculosis sanatorium, no tuberculosis commission and the total number of beds available to consumptives in the entire State outside the city of Chicago would hardly represent the capacity of more than a medium-sized public institution. To make a bad situation worse, Illinois has been one of the few states in which physicians have not been required to report cases of tuberculosis to the local health authorities. The states in which tuberculosis must be reported by medical practitioners and others cognizant of them and the dates on which the disease became reportable in these states are as follows: Alabama, 1907; Alaska, 1913; Arkansas, 1913; California, 1907; Colorado, 1913; Connecticut, 1901; Delaware, 1914; District of Columbia, 1908; Florida, 1913; Iowa, 1911; Idaho, 1914; Indiana, 1915; Kansas, 1909; Louisiana, 1909; Maine, 1895; Maryland, 1904; Massachusetts, 1907; Michigan, 1893; Minnesota, 1913; Mississippi, 1910; Montana, 1913; New Hampshire, 1911; New Jersey, 1909; New York, 1908; Oklahoma, 1908; Oregon, 1903; Pennsylvania, 1909; Porto Rico, 1911; Rhode Island, 1909; South Carolina, 1910; South Dakota, 1913; Texas, 1911; Utah, 1905; Vermont, 1902; Washington, 1912; Wisconsin, 1907.

cure of disease by modern methods. It was well-nigh impossible to break down the accumulated traditions of generations and make parents and grandparents listen when they "didn't believe."

But *children* are different. They have no superstitions or traditions to be overcome; they listen with unprejudiced ears, and in their education lies the ultimate hope for the prevention of communicable disease. The truth which is taught children to-day will be as firmly embedded in them in another generation as the misinformations and superstitions which were implanted in their parents during their childhood.

All classes of children may be reached on the common ground of the schoolroom as all classes of adults can never be reached in any single way. On this account, childhood offers not only the most responsive but the best field for health education.

The teaching of simple rules of health to children, with the "reasons for" and the "why nots" will mean a more intelligent, a saner, a longer-lived and happier next generation. The prevention of disease among children and the consequent building of walls of defense for the future, is quite as important as the giving of nursing care and medicines to those who are already sick. The fact that tuberculosis is so essentially a disease of childhood infection makes it altogether fitting and proper that a successful fight against it shall be waged by and for children. Consequently, the Illinois State Department of Public Health and affiliated organizations invite teachers, nurses and others interested in health work in every city, town and rural school center to organize, among the children of that community, Open Air Crusader Leagues as a means of promoting health among children and through them for the entire community.

AN ILLINOIS OPEN AIR CRUSADER is a boy or girl who interests himself actively in his own health and that of others, and pledges himself to conform to a set of simple health rules. He need not promise to perform difficult feats of any kind, to raise money or to burden himself with many strict rules; but he must promise to try to follow, in his daily life, the fundamental things that make for health and happiness.

Individual leagues of Illinois Open Air Crusader's are given absolute freedom to select their own rules of health and form their organization in such a way as to fit their particular needs. The following pledge card, while it is merely suggestive, is being used in many communities with success:

ILLINOIS OPEN AIR CRUSADERS.

As a Member of the Illinois Open Air Crusaders, I will try:

1. To have fresh air where I work or play.
2. To stay out of doors as much as possible.
3. To sleep with my windows open, or on the porch.
4. To breathe through my nose, with my mouth closed.
5. To bathe my body often—at least once a week.
6. To keep my clothes clean and neat.
7. To sit up straight in school all the time.
8. To help keep the schoolroom clean and well ventilated.

9. To brush my teeth at least once a day.
10. To see that no dirt or rubbish is in my yard, alley or street.
11. To be careful NOT to SPIT.
12. To cover my mouth when I cough.
13. To eat plenty of good simple food.
14. To see that there are no flies or rats where I live.
15. To urge others to keep these rules.

Signed
 Company Regiment

Tuberculosis is a great scourge of the warring nations of Europe. We can help win the war by preventing tuberculosis in the United States. This is the chance for every Crusader to help fight in one of the great battles of the war.

If it is desired to have a simple form, the same rules may be stated as follows:

1. Always breathe fresh air. Never study, sleep, work or play in a room without a window open. Take ten deep breaths every day.
2. Eat nourishing food and chew it thoroughly. Drink plenty of pure water and use your own cup. Avoid food that is hard to digest, like heavy pies and cake and much candy. Never eat or drink anything that weakens the body, like alcoholic drinks.
3. Make sure that everything you put in your mouth is clean. Wash your hands always before eating and bathe your whole body often. Clean your teeth every day. Have a regular time every day for attending to each need of your body.
4. Exercise every day in the open air. Keep your shoulders straight. Do not smoke before you are grown up.
5. Get a long night's sleep. Get up smiling. Keep your mind clean and cheerful.

THE DIRECTOR OF CRUSADERS.

THE PERSON WHO DESIRES to form a Company of Crusaders, whom for convenience let us call the "Director"—be it nurse, doctor, teacher, health officer or school patron, should above all things, believe in the necessity for such an organization and enter upon his work with enthusiasm. He should not feel that, because there are physiology classes studying how to keep well; because the school nurses go into the schools regularly for inspection and into the homes for consultation with parents and children; or because it is the duty of the School Board to keep the building clean and well ventilated, that there is no place in the community for Open Air Crusaders. The organization should supplement the regular school exercises and usually, physiology teachers and nurses are eager for the help of an organization which makes the study of health an interesting game rather than a routine part of the school course.

The Director should call the children together at some convenient time and place (preferably in the building, after school hours, or on Saturday) and in a simple and direct way, which children can understand, explain that he proposes to mobilize them for service in the army against disease; that they are to join, with other boys and girls all over the State in a modern movement which transfers some of the romance of the medieval Crusaders, (of which they may have studied in history), to the activities of the present day. He should put before them the chivalry of health; the high ideals of strength, right living and the pro-

tection of the weak; he should explain what such an organization may mean, to the children themselves and to the whole community, if they will start it with serious purpose and determination. All children from third grades to high school pupils are eligible to enrollment when they have indicated their desire to join by signing the pledge card and bringing in the Health Record sheet with a passing grade for at least two weeks. These record sheets (suggestive form is shown on another page) should be given out at the first meeting, and a date, two weeks later, set as the time for the return of these sheets when the real organization will be completed.

The children should be told of plans for their future work—and enthused by reports of what organizations in other towns are accomplishing. They must be made to feel that it is a permanent organization with a real purpose and a definite, concrete plan of action that will keep them busy all the time.

If a schoolroom of children is not available as the unit for organizing, the director may reach children in some other way; through parent-teacher's associations, Women's Clubs, visiting nurses, boy scout masters, camp fire girl leaders, Y. M. C. A.'s, Y. W. C. A.'s, Sunday schools, etc.

AS SOON AS THE ORGANIZATION IS MADE and the children have been duly enrolled their officers should be selected. Each Company (usually the children of one room) should select a Captain, or the Director may appoint the child who turns in the best Health Record sheet. Each Regiment (the Companies in one school or school district) should select a Colonel from among its Captains—preferably the boy or girl with the highest per cent on his Health Record Sheet, but with due regard for executive ability.

The duties of a Captain shall be to preside at all meetings of his Company and to keep records of the accomplishment of his men; he shall take the lead in all school activities which pertain to health, such as, watching the thermometer and the ventilation of the schoolroom, reporting cases of illness or neglect of Crusader duties to his teacher, or the Crusader Director, etc.

The duties of a Colonel shall be to preside at all meetings of his regiment, to keep the records of the Captains under him, to issue such commands in regard to the enforcement of Health rules, as the Director may have decided upon and in all ways to be responsible for the Crusader activities of his regiment.

If desirable, all Crusaders may wear celluloid buttons with the double Red Cross and the words "Illinois Health Crusader";¹ Captains may wear the silver Crusader pin² and Colonels the gold Crusader pin.³

PROGRAM OF WORK.

THE EXTENT TO WHICH THE WORK in a locality shall be carried on, as well as the manner in which it shall be done, is left to be determined by the amount of time a director can give to it and the needs

1, 2, 3—These insignia may be obtained at cost price from the Illinois Tuberculosis Association, 8 South Dearborn St., Chicago.

[illegible]

Address.

of the particular community. The program of suggestive work given here may prove more than most directors can carry out. In some localities it may not at first be feasible to form companies at all, the Crusaders being enrolled only as members of the general movement. However, the formation of a local company is always highly desirable to make the work count for the most and in order to bring recognition to the Crusaders as members of the State and National movements.

The work of a Company of Open Air Crusaders is the promotion of health both for its members and the community. Since it is of first importance to educate the Crusaders and keep up their interest throughout the year, a definite series of meetings (one at least every two months) should be held and a program carried out. The following schedule is suggestive:

FEBRUARY: Home gymnastics. Folk dances. Methods of out-door sleeping.

APRIL: Fly and mosquito campaigns. Clean-up work. Baby welfare.

JUNE: What to eat and drink. Food protection. Typhoid fever. Temperance.

AUGUST: Outing or picnic. Field athletics and organized play. First aid to the injured. Fire drills.

OCTOBER: Care of teeth and eyes and skin. Prevention of Blindness. Tooth brush drill.

DECEMBER: Tuberculosis and respiratory diseases. How to Prevent colds. Red Cross Christmas Seals.

Every one of these meetings can be made intensely interesting, if a doctor, dentist, nurse or physical director be invited to give a talk and demonstration on the topic selected. If models, pictures and lantern slides are provided and the talk be given in language especially interesting to children, the success of the meeting is assured.

The Crusaders should, whenever it is possible, take an active part in the program themselves. They should be the actors in the health playlets; ⁴ make the reports on "Clean-up inspection" and lead in tooth-brush and fire drills. Those who have won prizes or officers of any kind should be formally decorated with badges before all who attend the meeting.

Where no special speaker has been provided, the Director or the Captain may at least read an interesting story like one of the "Keep Well Stories for little Folks," ⁵ or an inspiring tale of the Knights of the Middle Ages.

A height and weight contest to show who has made the greatest gain, may be held, if Crusaders are measured periodically and records kept. Calisthenics or, better still, health games ⁶ may be introduced at the "Outing" Meeting.

4—Fifteen Health Playlets, printed separately in pamphlet form, may be purchased from the National Association for the Study and Prevention of Tuberculosis, 105 East 22nd St., New York City, at one cent each.

5—The Keep-Well Stories by May F. Jones, M. D., are published by J. B. Lippincott Co. (Price 75c.)

6—Information about Health games may be obtained from the Iowa State Tuberculosis Association, Century Bldg., Des Moines, Iowa.

Where a motion picture can be obtained, the Crusaders may make their meeting a popular success by showing one of the Health Films; stereoptican slides or an exhibit on some health subject, with or without a speaker, will fill in an evening's program.⁷

A "Health Crusader pennant" and a copy of the "Daily Health Guide"⁸ hung in the schoolroom or place of meeting will serve to remind the children of their Crusader duties. The adoption of a Crusader song is an added popular feature.

Two or three prize contests a year, for health essays, better babies, clean-up work, or gardens will be stimulating to the Crusaders. Prizes, no matter why they are offered or how simple they may be, never fail to be popular.

If it is impossible to conduct a Crusader paper, such is being published by the Peoria and Springfield Crusaders,⁹ it will prove the best method of effectively concentrating, solidifying and tying together all the scattered efforts of the individual Crusaders. It will carry its message of health into the homes and interest parents as well as children.

The Springfield publication has different departments, like a regular newspaper, it contains essays, stories, rhymes, jokes, cartoons, puzzles, book reviews, war news, beauty hints, a household science department, dramatic notes, etc., all about health and all written by Crusaders. It is carefully edited and effectively printed and is a source of great pride to the children.

If funds are not available for the printing of the paper, it can be issued in long hand and read at some Crusader meeting or it can be made an annual publication instead of a bi-monthly.

If this is too pretentious an undertaking, it may seem wiser to ask the local newspaper editor, to run an occasional column of "Crusader News," to be furnished by the children.

Selling Christmas Seals should be a part of the regular Crusader program for the year, thus insuring for each Crusader some measure of the work and sacrifice indispensable for every movement if it has real value.

COMMUNITY WORK.

CRUSADERS may make themselves useful to their town in many ways. They may work for fresh air schoolrooms, clean streets, sanitary drinking fountains, public playgrounds, etc. They may draw up petitions and agitate for medical inspection of schools, backed with nursing service. They may carry on anti-fly and city clean-up campaigns.¹⁰ They may appeal for the enforcement of anti-spitting ordi-

7—Health films may be secured from the Illinois Tuberculosis Assn., 8 So. Dearborn St., and from the Illinois State Department of Public Health, Springfield. Stereoptican slides and exhibits with typewritten explanatory lectures on "Tuberculosis," "The Prevention of Communicable Disease," "Flies," "Child Welfare," etc., may be loaned from the State Department of Public Health, Springfield, Illinois.

8—The Pennants and Health Guides Charts may be secured from the Illinois Tuberculosis Association, 8 South Dearborn St., Chicago, at cost price.

9—Sample copies of the "Springfield Open Air Crusader" will be sent on request by the Springfield Tuberculosis Association, 628 East Capitol Avenue, Springfield, Illinois.

10—Samples of the inspection Blanks used by Crusaders in the Clean-up Campaign will be sent on request by the Springfield Tuberculosis Association, 628 East Capitol Avenue, Springfield, Illinois. A circular on How to Conduct an Anti-Fly and Clean-Up Campaign will be furnished on request by the State Department of Public Health, Springfield, Illinois.

nances, and quarantine laws and sanitary markets. They may work for the prohibition of the sale of liquor.

Numerous other ways will suggest themselves by which the Crusaders may take their part in community betterment. Almost any public project to be inaugurated will prove to have its place and a work for the Crusaders.

ADVICE TO CRUSADER DIRECTORS.

1. Enlist the interest of your school authorities in the Crusader work. It will be a much greater success if the principal and teachers feel that it is important and will cooperate with the director.

2. Have a serious purpose and a definite plan of activity—then plan as simple an organization as will fit your needs with as few rules and as little red tape as possible.

3. If possible, form your organization before the Christmas Seal Sale. If formed during the Seal sale, the first efforts of the Crusaders will be for the purpose of raising money, and to a child the first effort is always of paramount importance.

Remember, the possibilities of your organization can only be realized by hard work and constant vigilance and infinite patience. But, "We know that if our children are to grow up with a distinct realization that personal and community health are really vital and tangible assets, we must put before them day after day the way after the old truths which have been too long neglected. But if we can impress upon the Crusaders that health must be preserved at all costs and then teach them how this may be done, we will have performed an invaluable service for the community."

TABLE SHOWING PERCENTAGE OF TUBERCULOUS CASES DETECTED IN EXAMINATION OF MEN FOR THE NATIONAL ARMY IN ILLINOIS.

Compiled from six district reports submitted to the offices of The Department of Public Health.

Total number men examined.	Percentage found tuberculous.
991	5.
1000	2.3
250	1.6
246	16.
1200	2.4
1706	2.7

Average for the six registration districts..... 5.

NOTE.—In last-named district, total number men disqualified for physical defects was 350. Of this number 13 3/7 per cent were tuberculous.

TO HOLD CLINICAL CONFERENCE.

First of Series on Tuberculosis Late This Month in Springfield.

THE FIRST OF A SERIES of Clinical Conferences on Tuberculosis will be held in Springfield November 22, 23 and 24. This meeting, as well as those which will follow, will be held for county medical directors of the Cooperating committee on the Tuberculosis War Problem, and will be attended by medical health officers from central and southern Illinois.

Supporting this series of meetings are the State Council of Defense, the State Department of Public Health and the Illinois Tuberculosis Association.

Sessions of this first conference will be held at the Springfield Dispensary, the Springfield Open Air Colony and at St. John's hospital. Practical phases of the tuberculosis problem will be taken up under the guidance of eminent authorities and instructors, and every minute promises remarkably interesting and helpful results. Pleasant social hours will be intermingled with those of study and instruction.

Among those who will be in Springfield to take charge of the instructing at the conference will be the following:

Dr. O. W. McMichael, Medical Director Edward Sanatorium, and Director of Tuberculosis in the Chicago Polyclinic, Chicago; Dr. Ethan Allen Gray, Medical Director Chicago Fresh Air Hospital, and in charge of the department of Tuberculosis in Northwestern University Medical school, Chicago; Dr. H. K. Dunham, Anti-Tuberculosis League, Cincinnati, Ohio; Dr. John H. Peck, Secretary Iowa Tuberculosis Association, Director Des Moines Tuberculosis Dispensary, Special Tuberculosis Examiner for the United States Army at Fort Des Moines and Camp Dodge, Iowa; and Dr. George Thomas Palmer, President of the Illinois Tuberculosis Association, Assistant Director Illinois State Department of Public Health, Medical Director Springfield Tuberculosis Dispensary and Director Open Air Colony. Dr. Palmer will direct the conference.

Plans will be made to accord to the visiting medical directors and health officers every possible courtesy. Dr. Palmer and those who assist him in entertaining desire that the visitors shall enjoy their stay in Springfield, as well as benefit from the technical information which will be disseminated.

CONFERENCE PROGRAM.

The program for the Conference follows:

THURSDAY, NOVEMBER 22.

9 a. m. At the Springfield Dispensary. **ROUND TABLE DISCUSSION OF THE TUBERCULOSIS PROBLEM OF ILLINOIS.—THE TUBERCULOSIS WAR PROBLEM.**

10 a. m. At the Springfield Dispensary. **ESSENTIALS IN DIAGNOSIS. The Case History—History Taking with Clinical Discussion.**

- 12:30 LUNCHEON. Leland Hotel.
p. m. ROUND TABLE DISCUSSION ON AGENCIES EMPLOYED TO COMBAT TUBERCULOSIS.
(a) Educational Campaigns.
(b) Nursing Service.
(c) Dispensaries.
(d) Sanatoria.
- 2 p. m. At the Springfield Dispensary. CLINICAL DISCUSSION ON TUBERCULIN TESTS AND THEIR SIGNIFICANCE.
- 4 p. m. At the Springfield Dispensary. DISPENSARY CLINIC.
- 8 p. m. At the Springfield Dispensary. ROUND TABLE DISCUSSION ON FINANCING COMMUNITY TUBERCULOSIS WORK.

FRIDAY, NOVEMBER 23.

- 9 a. m. At the Springfield Dispensary. INFORMAL DISCUSSION OF DISPENSARY METHODS AND DISPENSARY RECORDS FOR THE SMALL COMMUNITY.
- 10 a. m. At the Springfield Dispensary. DISPENSARY CLINIC DEVOTED TO TUBERCULOSIS OF BONES AND JOINTS.
- 11:30 At the Springfield Open Air Colony. CLINICAL DISCUSSION OF
a. m. MANAGEMENT AND INSTRUCTION OF INDIVIDUAL PATIENTS—LIVING OUT-OF-DOORS.
- 1 p. m. At Springfield Open Air Colony. LUNCHEON.
- 2 p. m. At Springfield Open Air Colony. CLINICAL DISCUSSION. DIAGNOSTIC METHODS. CASE RECORDS.
- 7 p. m. At the Sangamo Club. DINNER. INFORMAL DISCUSSION OF COUNTY TUBERCULOSIS SANATORIUM CAMPAIGNS.

FRIDAY, NOVEMBER 24.

- 9 a. m. At St. John's Hospital. CLINICAL DISCUSSION ON THE X-RAY IN DIAGNOSIS OF TUBERCULOSIS.
- 11 a. m. At the Springfield Dispensary. DISPENSARY CLINIC.
- 1 p. m. At the Leland Hotel. LUNCHEON. ROUND TABLE DISCUSSION OF LOCAL COMMUNITY PROBLEMS.
- 4 p. m. At the Springfield Dispensary. CLINICAL OBSERVATION OF TUBERCULIN TESTS MADE THURSDAY. SPECIAL CLINICAL DISCUSSION.

During the Conference all Visiting Physicians will be assigned clinical cases for examination and diagnosis under the direction of Attending Physicians.

THE DEATH RATE FROM TYPHOID FEVER is being reduced in North Carolina. The Vital Statistics department of the State Board of Health has compiled reports to show that from January 1 to August 1, this year, there were 199 deaths as against 306 for the corresponding period of last year. The total number of deaths from typhoid last year was 700, for 1915, 744, and for 1914, 839.

THE BETTER BABIES MOVEMENT in North Carolina has received a greater impetus this year than ever before. The State Fair Association, in addition to giving prizes for good babies this year, offered a valuable premium for the baby showing the greatest improvement since last year. Children under forty-eight months are eligible.

ATTORNEY GENERAL GIVES OPINION.

Anticipation of Sanatoria Funds Explained—Tax Levy, Once Made, Can not be Changed—Sending Patients Elsewhere.

THE ATTORNEY GENERAL of Illinois, in an opinion given to the State Department of Public Health, makes holdings on several important questions pertaining to the county tuberculosis sanatorium law.

For one thing, the Attorney General holds that counties which have made tax levies for sanatoria purposes, and which need the money now to proceed with execution of their plans, may lawfully anticipate the spring tax collections with warrants drawn for immediate use.

Another holding of importance is that counties which, in September, made their sanatoria levies, can not, at the December or a later meeting, increase that levy. This question came from the desire of certain county boards of supervisors, after levying a tax in September, to make the tax larger. It had been planned to make the change in December.

Furthermore, the Attorney General holds that, where counties have made levies for sanatoria purposes, yet have insufficient funds actually to build a sanatorium, such counties may pay out of the sanatoria fund the expenses of persons sent to sanatoria in other counties of the State. In no instance, of course, may the expenses of patients be legally paid when they go to sanatoria outside Illinois.

The text of the opinion which the Attorney General submitted to the Department of Public Health follows:

The Questions Asked.

YOU MENTION that in seven counties in this State, tuberculosis sanatoria have been established and concerning same you make three inquiries, as follows:

"1. Inasmuch as the county tuberculosis sanatorium law was enacted in 1915 and first voted upon at the general election of 1916, the tax levy for sanatorium purposes has been decided upon by the County Board of Supervisors and Commissioners in the several counties at their September meeting this year. As I understand it, actual funds will not be available until the spring of 1918. Will you kindly advise me as to whether these funds can now be anticipated for immediate use by the several sanatorium boards and if so, how this should be done?

"In Ogle County the Board of Supervisors determined upon a tax of 0.10 of a mill which will produce an actual revenue of about \$1,800 for educational and visiting nursing service and it is the desire to begin operation at once.

"2. In certain counties where the Board of Supervisors determined upon a very low tuberculosis sanatorium tax when the matter was up for consideration at the September meeting, certain supervisors have manifested a desire to reconsider the amount of the tax and in one instance it is proposed to increase the levy at the December meeting of the Board of Supervisors. Can the Board of Supervisors, having determined upon the amount of tax at the September meeting, increase this tax at the December meet-

ing, and if so, would this tax at the increased rate be available in the spring of 1918?

"3. The county tuberculosis sanatorium law authorizes the Board of Trustees of a county sanatorium to do many things aside from the establishment and operation of a sanatorium. The law also authorizes county sanatoria to receive patients from other counties. In some of the smaller counties the tax will be so small as not to permit the construction of a sanatorium. In your opinion is it lawful for the Board of Trustees of a county sanatorium to expend funds raised under the provisions of the sanatorium law for the care and treatment of patients in public or private sanatorium situated outside the county? That is, can a county tuberculosis sanatorium board, having insufficient funds to erect a sanatorium, make provisions for tuberculous persons in other institutions, expending funds derived from the sanatorium tax therefor?"

Attorney General's Holdings.

IN ANSWER TO OUR FIRST INQUIRY, I refer to paragraph 2 of chapter 146, Hurd's Statutes, 1916, which enacts in part:

"That whenever there is not sufficient money in the treasury of any county, city, town, village or other municipal corporation to meet and defray the ordinary and necessary expenses thereof, including all expenses for building purposes, it shall be lawful for the proper authorities thereof to provide a fund to meet all said expenses, by issuing and disposing of warrants drawn against and in anticipation of any taxes already levied by said authorities for the payment of all such ordinary and necessary expenses of such county, city, town, village or other municipal corporation, to the extent of 75 per centum of the total amount of any such tax levied:"

In the case of *The People v. Cooley*, 146 App., 113, the court in construing a former law similar to the above held in effect, that when a county board had not enough money on hand to defray necessary expenses, it then became the duty of the county board to draw anticipation warrants in a similar manner but on not quite the same terms as the statute of 1913, above quoted.

I must conclude that under said later statute, it would be proper to draw anticipation warrants in statutory form for sanatorium purposes when deficiencies make such action necessary.

YOUR SECOND QUESTION is, in effect, whether the board of supervisors can, at any other than their September meeting, increase the said sanatorium tax levy.

On investigation, I do not find any authority for a tax levy at a December or other meeting than in September in any county, outside of Cook.

In *Chambers v. The People*, 113 Ill., 509, the court at page 520 in the opinion held:

"As to county taxes, they can not be lawfully levied until in September."

Paragraph 121 of chapter 120, Hurd's Statutes, 1916, in part enacts:

"The County Board of the respective counties shall, annually, at the September session, determine the amount of all county taxes to be raised for all purposes."

By paragraph 135 of said chapter, it is made the duty of the county clerk to prepare and have ready for delivery the tax collector's books by the 21st day of December of each year.

It would, therefore, be almost an impossibility for the clerk to extend and spread upon said books, the tax levy if same were delayed until a meeting of the board in December.

So that, I must conclude that the annual September meeting of the board is the proper and probably the only time contemplated by the statute to make the levy for county sanatorium purposes.

AS TO YOUR THIRD INQUIRY, I find in paragraph 151 of chapter 34 on the subject of said sanatorium language as follows:

"And said board of directors may extend the privileges and use of such sanitarium and treatment to persons so afflicted, residing outside of such county, in this State, upon such terms and conditions as said board of directors may from time to time by its rules and regulations prescribe."

It would appear from said paragraph 151 that persons afflicted with tuberculosis, from other counties, may be treated in such sanatoriums, and the expense of such treatment be paid out of funds raised for such persons by the counties sending them. But, I am inclined to the opinion that said funds can not be used to send patients for treatment to any places, other than those mentioned in said sanatorium statute.

Paragraphs 152 and 153, being sections 8 and 9 of said act, provide for the receipt of donation, contribution, bequests and devises of money or property for the various purposes of the act. And section 7 permits the treatment of patients in their homes.

It seems clear that besides the tax for such purposes, such funds may be used for any and all purposes specified in the act, but not for any other purposes whatever.

A CENSUS OF TUBERCULOUS DEATHS.

COOPERATION of every physician in the United States is being sought by the Bureau of Census, Federal Department of Commerce, in an effort to prepare and publish a monograph of the mortality from tuberculosis covering the entire calendar year 1918. The State Department of Public Health has been notified of the Government's plan, and will extend whatever aid lies within its power to give. Not only will death cases be tabulated, but occupations of the decedents as well.

PREVENTION OF TUBERCULOSIS AMONG ARMY MEN is one of the chief subjects which the Southern Tuberculosis Conference will consider at its meeting November 9 and 10 in Chattanooga, Tenn. States that will be represented at the meeting are North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana and Tennessee.

IN LINE WITH PROGRESS.

Steps Illinois Cities Are Taking to Make Them Better Communities.

THE BLOOMINGTON PANTAGRAPH says: "With the opening of a new school year, the city health board has made provision whereby the school children of the city may have reduced to a minimum the chances for an outbreak of any epidemic. Three professional nurses have been engaged who will this week visit each of the ward school buildings for the purpose of investigating any reported children who are ill. The teacher in each room, if she thinks a certain child may be coming down with any of the common contagions, will report the matter to the nurse and the child will submit to an examination by the nurse to determine if the child shall further attend school until after the danger period is past. The plan is working in fine shape and so far no contagious cases have been found."

THE DECATUR HERALD devotes a leading editorial to "The Social Sense of the County Board" and deals with the subject after this manner:

"After the announcement that there had been 37 cases of typhoid fever in August, and more deaths than usual it was somewhat discouraging to read in the proposed city tax levy ordinance, published on the last days of the month, this item:

	1917	1916
Health Department	\$5,000	\$5,000

This indicated that despite the epidemic which clearly pointed to the need of more stringent sanitary measures, the city of Decatur would spend in the coming year no more on health than in the year before.

"We do not at this time comment upon the reason that the health department appropriation will not be increased and make no criticism of the Council's position. The figures speak for themselves. There is more cheering news to record.

"The estimates approved by the Board of Supervisors in their session this week, include among other things:

Care of dependent children.....	\$ 2,000
Decatur and Macon County Welfare Home.....	600
Maintenance of Decatur and Macon County Hospital.....	5,000
Equipment of Decatur and Macon County Hospital.....	12,000
Macon County Tuberculosis and Visiting Nurses Association.....	3,000

"These figures may be read with pride by every citizen of Macon County. They clearly show that the Board of Supervisors is imbued with social sense, and conceive its functions to be something beside a distributing agency for road and bridge funds and money to take care of the routine business of the county. The support voted to the Tuberculosis and Visiting Nurses Association is a most gratifying demonstration that the board is keenly alive to a great social need.

"A large part of the work of the association will be done within the city limits of Decatur. All the more credit then to the county members who recorded themselves in favor of it. But it is, of course, true that the lines between country and city gradually are being obliterated; we are one community.

"This attitude on the part of the board toward social welfare is doubly gratifying for the reason that it atones somewhat for the lagging which an insufficiency of money imposes upon the city proper.

THE CANTON correspondent in the Peoria Star says: "In lieu of the annual physical examination of pupils of the city schools, the visiting nurse, Miss Mattie Havermale, will this year keep a watch for diseases among the pupils and have such cases reported to the proper authorities, so that the family physician may be called upon for treatment. Because of the call of several of

the physicians of the city to the colors, it is felt by the school authorities that it would be an imposition on the remaining doctors, who will be busy, to make the usual examinations."

THE PEORIA STAR says: "Miss Laura Hatcher has been appointed medical inspector by the school board and has begun her work of examining the children of the grades for physical defects that can be relieved by treatment."

THE GILLESPIE NEWS preaches the following brief editorial sermon to some of the town's citizens:

"You claim to be a law-abiding citizen, don't you? Well, are you? Have you cut the weeds when ordered to do so by the Board of Health? Have you tried to live up to the law? Isn't it a fact that you haven't much respect for any law that is not to your way of thinking? Think this over, take an invoice of yourself, and see if there is not room for improvement!"

HEAR YE THIS MESSAGE OF WISDOM.

First Corinthians, 13th Chapter, Paraphrased, and read before the Chamber of Commerce at Waukegan, September 13, 1917, as part of an appeal for Pure Water and Proper Sewage Disposal—John A. Kappelman, M. D., District Health Officer, Chicago District.

Though I speak with the tongues of men and of angels, and have not Health, I am become as an empty vessel, best adapted to the making of a great noise.

And though I have the gift of oratory, and understand all audiences, and human nature, and though I have plenty of money so that I could actually remove real mountains, and have not Health, I am good for nothing.

And though I allow my money to be used to feed the poor, and establish universities, or give away libraries to bear my name, and have not Health, it profiteth me nothing.

Health maketh me to live long, and is kind; Health envieth not; Health vaunteth not itself falsely, and can not be imitated successfully.

Health maketh me to act naturally, and is not selfish; helps me not to be unjustly provoked; bringeth forth no sickness.

Boasteth not in the presence of the misfortunes of others, but cooperates to spread the Truth.

Helps me to bear all things, tolerate all things, hope for better things, endure most things.

But Health sometimes faileth, as do prophecies, even tongues cease, and even the knowledge of the advantages of pure water seems, at times, to fade away.

Yet here we drink its parts and we eat its parts, but when that water which is filtered is come, then the sewage in it shall be done away.

When I was a child, I drank it as a child; for I had the understanding of a child, but since I became a man, I am accountable for the continuation of those childish things.

For now we see through the glass of Lake Michigan water darkly, but we shall see through it face to face. Now we see its parts, but later, we shall see it pure, even as they see it in Evanston.

And now abideth Wealth, Knowledge and Health, these three, but the greatest of these is Health,—

"The Last shall be First" because

The Greatest Wealth of a Commonwealth is Health. Therefore, Seek ye first the preservation of Health, and all these other things of Knowledge and Wealth shall be added unto you.

FIGHTING INFANTILE PARALYSIS IN COOK COUNTY.

ON ACCOUNT OF the unusual prevalence of poliomyelitis in and about the city of Chicago, Dr. C. W. East has been assigned to the Cook County District, where he will work in conjunction with Dr. John A. Kappelman, State Medical Health Officer in charge of the north-eastern health district, in an effort to prevent and suppress this disease. During the prevalence of infantile paralysis in Illinois in 1916, Dr. East was constantly engaged in the investigation of cases and sources of infection and during the summer of 1916-17 he conducted a series of clinics extending throughout the entire State devoted to the after-treatment of infantile paralysis and to the instruction of parents in the proper handling and care of the victims of the disease.

On account of the mystery that seemed to surround infantile paralysis in the past, a tremendous public interest has attached to it, and the many inquiries received by the Health Department were answered in a "poliomyelitis catechism" written by Dr. East and published in these pages for June, 1917. (P. 147.)

IN UNDERTAKING the warfare against infantile paralysis in Cook County, the State Department of Public Health has adopted some informal "articles of faith" based upon practical experience during the past two years.

According to this doctrine, permanent deformity can usually be avoided when the paralysis is treated promptly and with common sense.

The most important injunction for the public is that the child should be hurried to the nearest competent physician as soon as evidence of disease appears.

Recent study has robbed poliomyelitis of the mystery in which it was once shrouded. It is a general disease—an infectious disease—and there is nothing more mysterious about it than about other communicable diseases. It is spread through the usual epidemic routes. In its transmission it is quite as commonplace as scarlet fever or chicken pox.

ONE OF THE FUNDAMENTAL FACTS upon which the campaign is based is that poliomyelitis can be diagnosed accurately and early—before the period of paralysis—if parent and physician both do their part.

During the prevalence of infantile paralysis any illness of any child should be looked upon with suspicion.

Severe or unusual pains, such as headache or backache, should be regarded as danger signals. A child of normal health rarely has such pains. Tenderness or pain on being handled should arouse special suspicion, as should a tendency toward instability in standing or walking or marked drowsiness.

Since paralysis develops in from one to four days after the first symptoms, treatment should be immediately established.

THE CARDINAL PRINCIPLES of treatment are, first, to keep the child absolutely quiet until all tenderness is gone. There should

be no manipulation or massage. Second, deformities must be prevented by the use of firm, soft padded braces and splints to keep in a neutral position any part in which paralysis occurs. Third, after all acute evidence of disease is past, the affected muscles must be reeducated.

Stated briefly, the physician's duties are (a) to prevent deformity, (b) to recognize just what muscles are affected, (c) to retrain these muscles, (d) to guard against fatigue or undue weight bearing, and (e) to elicit the patient's mental effort in every attempt to use the sound muscles.

Thus far about 70 per cent of the cases of poliomyelitis in Illinois have been among children, adults constituting the remainder. According to various estimates, from one to seven out of every one hundred persons exposed to the disease will become affected.

THE BOYS IN KHAKI.

Oh, boys in blue
What joy to do
Sweet paragraphs
In verse to you
For "honor due"
And "hearts so true,"
And "sad and blue"
And "fight it through"
And "noble crew"
Are just a few
That rhyme with "blue"
To sing to you.

Oh, boys in khaki—
Oh! howling hockey!
The words are rocky
That rhyme with khaki!
Of course there's "cockey"
And "fat and stocky"
And "chicken-pockey"
And then there's "jockey"
For poetic use
They're rough and knocky—
Oh, change your clothes,
Dear lads in khaki.

THE CHARGE HAS BEEN MADE in recent newspaper articles that Chicago women—not all of them, but some—are wearing sweaters, the yarn in which should have been knitted into soldiers' garments. A military benefit affair a few weeks ago at Hawthorn farm, near Libertyville, was cited as an instance where women's sweaters were too much in evidence.

THE SUM OF \$50,000 has been set as the goal for the total of revenue from Red Cross seals in North Carolina this fall. Last year, \$12,000 was realized from the sale of Christmas seals.

THEIR OWN MEDICINE "



.. NO PUBLIC OFFICIAL SHOULD TOLERATE AN ISOLATION HOSPITAL TO WHICH HE WOULD NOT WILLINGLY GO AS A PATIENT. . . .

ILLINOIS HEALTH NEWS

"THE GREATEST WEALTH OF THE COMMONWEALTH IS HEALTH"

STATE DEPARTMENT OF PUBLIC HEALTH
OFFICIAL MONTHLY BULLETIN

[Printed by authority of the State of Illinois.]

PUBLISHED AT SPRINGFIELD.

Entered at the Postoffice at Springfield as Second-class Matter.

Vol. III, No. 12.

DECEMBER, 1917.

New Series

"WHEN YOU HEAR YOUR COUNTRY CALLING,—ILLINOIS,—ILLINOIS."



—ALMOST 3000-ILLINOIS PHYSICIANS—PRACTICALLY 25% OF THE MEDICAL MEN—ARE IN GOVERNMENT SERVICE IN ARMY-NAVY-OR ARMY EXEMPTION BOARDS.—

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George T. Palmer, M. D., Assistant Director.

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ILLINOIS HEALTH NEWS

[Printed by authority of the State of Illinois.]

This bulletin will be sent free on request addressed to the Director, Illinois Department of Public Health, Springfield, Illinois.

VOL. III, No. 12.

DECEMBER, 1917.

NEW SERIES.

TUBERCULOSIS DISCUSSED AT MEETING.

Clinical Conference, First of Kind, Held With Twenty-five Counties Represented.

Central and southern Illinois medical health officers and physicians came to Springfield in encouragingly large numbers to attend the Clinical Conference on Tuberculosis, sessions of which occupied three days, November 22, 23 and 24.

The meeting was held under joint auspices, the State Council of Defense, the State Department of Public Health and the Illinois Tuberculosis Association lending the moral support. The main sessions were held at the Springfield Dispensary, where tuberculosis patients were used for the clinics. One of the sessions, however, was conducted at the Springfield Open Air Colony, where more than a score of patients are under open air treatment, and another at St. John's Hospital, where hospital nurses and internes cooperated.

The central clinical figures were Dr. O. W. McMichael and Dr. Ethan Allen Gray, of Chicago; Dr. George Thomas Palmer, Dr. C. W. East and Dr. Walter G. Bain, of Springfield. Adjutant General Frank S. Dickson made a talk at one of the evening meetings on the relation of the tuberculosis problem to the war, in which he emphasized the importance of wiping out tuberculous diseases from the army.

Dr. L. C. Taylor, president of the Springfield Tuberculosis Association, presided at two of the sessions, and Drs. J. J. McShane and George F. Sorgatz, of the State Department of Public Health, were in charge of the laboratory visit on the closing day.

Apparently the visiting physicians took home with them numerous practical suggestions for coming work within their own counties. Many of them declared they would endeavor to set afoot local or county sanatoria projects; others stated they would infuse the conference ideas into their own practice. All of the results, obviously, were for good, and those who had the management of the conference in hand were gratified.

Whether another Clinical Conference will be held in the near future, to accommodate north central and northern Illinois health officers and interested physicians, can not yet be definitely stated. It is hoped, however, to cover the State with some such a combination of influences as went out from the Springfield meeting.

Those who registered as attending the Springfield conference from out of the city were:

Fred B. Harding, East St. Louis; Doctors C. W. Turner, Harrisburg; C. F. Newcomb, Champaign; Vera U. Norton, Naperville; L. M. Marvel, Weldon; H. A. Pattison, New York City, now stationed at Rockford; J. W. Bowling, Shawneetown; H. A. Vise, Benton; L. J. Weir, Marshall; N. C. Iknayan, Charleston; Alpha B. Curry, Bloomington; Charles S. Bogardus, Clinton; C. M. Jack, Decatur; L. D. Keith, Anna; H. V. Bailey, Pekin; Harriet Daniel, Murphysboro; F. B. Hiller, Pinckneyville; W. M. Hartman, Macomb; S. W. Schmeck, Mt. Carmel; T. E. McCall, Vienna; C. E. Soule, Beardstown; L. C. Knight, Carthage; Irving H. Neece, Palmyra; H. C. Jones, Decatur; C. H. Zoller, Litchfield; T. D. Doan, Scottville.

In addition to the registered list were those who directed the clinical sessions and a large number of Springfield physicians, student nurses and others interested in the work who did not register.

DIRECTORY OF PHYSICIANS.

List of Those Licensed in Illinois on January 1, 1917—Year of Graduation Given.

Name	Address	Sch. of Pract.	College	Year of Grad.
Algoth, Ernest A.....	5201 N. Clark St.,	Chicago.R.	Jenner	1916
Awotin, Leo.....	1037 W. Monroe St.,	Chicago	R..Ind. Univ.,Sch. of Med.	1916
Balkovich, Israel.....	1735 W. Lake St.,	Chicago.R.	Chgo. Hosp., Coll. of Med.....	1915
Belsey, Wallace Adair.....	319 E. Lincoln St., Belvidere, Ill.....	.....R.	St. Louis Univ.....	1916
Carrico, Mamie Leola.....	Ashmore, Ill.....	.....R.	Rush	1916
Chiasson, Marcellin Jean.....	1633 Jackson Blvd.,	Chicago.R.	Loyola Univ., Sch. of Med.....	1916
Chmellik, Frank.....	St. Joseph Hosp., Joliet, Ill.	R..Chgo. Coll. of M. & S.	1916	
Cox, Ferdinand.....	Oakland, Ill.....	R..Univ. of Mich.	(Recip. Mich.).....	1909
DeBeck, Calvin Morgan.....	4416 Clifton Ave.,	Chicago.R.	Vanderbilt Univ. Med. Dept.....	1916
Doty, Flavia May.....	2224 Washington Blvd., Chicago .....	.....R.	Rush	1916
DeGrand, Alexander J.....	233 S. Lincoln St.,	Chicago.R.	Chgo. Coll. of M. & S.	1916
Ferrier, Edgar Garland.....	23 N. Market St.,	Chicago.R.	Jenner	1916
Foulkes, Wm. Alexander.....	1755 Fulton St.,	Chicago.R.	Bennett Med. College.	1915
Garvin, Thomas Martin.....	Arcadia, Iowa.....	R..Univ. of Iowa	Med. Dept.	1907
Gomberg, Harry.....	1551 S. Kedzie Ave.,	Chicago.R.	Loyola Univ., Sch. of Med.....	1916
Hall, William Lee.....	Greenville, Ill.....	R..St. Louis Univ.....	1915	
Heider, James E.....	1631 Warren Ave.,	Chicago.R.	Chgo. Coll. of M. & S.	1916
Highsmith, Charles Otto.....	Flat Rock, Ill.....	R..Loyola Univ., Sch. of Med.....	1916	
Howe, Charles Elbridge.....	Metropolitan Hosp., Black- wells Island, New York.	R..Hahnemann Med. Coll. Chic.....	1916	
Hubrig, Martin H.....	1850 W. Harrison, Chicago	H..Chic. Coll. of M. & S.	1916	
Jamieson, Elizabeth.....	Hinsdale Sanitarium, Hinsdale, Ill.....	R..Barnes Med Coll. (Recip. Mo.).....	1910	
Kan, Louis Joseph.....	2522 W. Division,	Chicago.R.	Loyola Univ., Sch. of Med.....	1916
Kelly, Francis Leo.....	304 Kline St., Aberdeen, S. Dak.....	R..St. Louis Univ.....	1916	
Kirpatrick, Robert Ross.....	3815 Washington Blvd., Chicago .....	.....R.	Loyola Univ., Sch. of Med.....	1916
Kollar, John Anton.....	St. Bernard's Hosp.,	Chicago.R.	Loyola Univ., Sch. of Med.....	1916
Konopa, Joseph F.....	551 Grant Place,	Chicago.R.	Chgo. Coll. of M. & S.	1916
Montgomery, John Solomon.....	Milan, Missouri.....	R..Rush	1903	
Nicholson, Niles H.....	1138 N. Leavitt St., Chicago .....	.....R.	Loyola Univ., Sch. of Med.....	1916
Pellettieri, John.....	806 S. Loomis St., Chicago .....	.....R.	Loyola Univ., Sch. of Med.....	1916
Pickett, William Joseph.....	823 E. 90th St.,	Chicago.R.	Loyola Univ., Sch. of Med.....	1916
Serritella, Michael Angelo.....	960 W. Harrison St., Chicago .....	.....R.	Chgo. Coll. of M. & S.	1916
Sodaro, Anthony.....	1114 W. Monroe St., Chicago .....	.....R.	Loyola Univ., Sch. of Med.....	1916
Stern, Joseph J.....	1846 W. Washington St., Chicago .....	.....R.	Chgo. Coll. of M. & S.	1916
Swan, Mary Hannah.....	Illinois Central Hosp., Chicago .....	.....R.	Johns Hopkins Med. Sch.....	1915
Stulik, Charles Klaus.....	1628 W. 21st St.,	Chicago.R.	Rush	1916
Thomas, Wm. Owill.....	Clinton, Wis.....	R..N. W. U. Med. Sch. (Recip. Wis.).....	1901	
Tubergen, Benjamin F.....	340 So. Hoyne Ave., Chicago .....	.....R.	Chgo. Coll. of M. & S.	1916
Watson, Leigh Festus.....	419 Colcord Bldg., Oklahoma City, Okla....	R..Med. Coll. of Virginia.	1906	

DIRECTORY OF PHYSICIANS—Continued.

Name	Address	Sch. of Pract.	College	Year of Grad.
Zilvitis, Paul Michael.....	3341 S. Union Ave., Chicago	R..	Chgo. Coll. of M. & S.	1916
January 15, 1917.				
Carstensen, Albert Brock- way	Iowa Methodist Hosp., Des Moines, Iowa.....	R..	Univ. of Ill., Coll. of Med.....	1916
Chlasson, Joseph P.....	202 S. Laflin St., Chicago..	R..	Loyola Univ., Sch. of Med.....	1916
Cicotte, Frederick Jos.....	Englewood Hospital, Chicago	R..	Loyola Univ., Sch. of Med.....	1916
Cohen, Mandel A.....	4636 Drexel Blvd., Chicago	R..	Chgo. Coll. of M. & S.	1916
De Couvsky, Abraham.....	1810 W. Taylor St., Chicago	R..	Chgo. Coll. of M. & S.	1916
Euerhart, Arley Glenn.....	108 N. State St., Chicago..	R..	Chgo. Coll. of M. & S.	1916
Fordyce, Alexander Wm.....	112 N. Leavitt St., Chicago	R..	Univ. of Ill., Coll. of Med.....	1916
Fruth, Harold Edgar.....	Fostoria, Ohio.....	R..	Chgo. Coll. of M. & S.	1915
Gaston, John Ogden.....	Park Ridge, Ill.....	R..	Detroit Coll. of Med.	1904
Haug, Loren Aden.....	St. Luke's Hospital, Chicago	R..	N. W. Univ., Med. Sch.....	1916
Henkin, Henry.....	1108 S. Richmond St., Chicago	R..	Chgo. Coll. of M. & S.	1916
Herschel, George E.....	1607 Jackson Blvd., Chicago	R..	Loyola Univ., Sch. of Med.....	1916
Hyslop, Clayton James.....	Mercy Hospital, Chicago..	R..	N. W. Univ., Med. Sch.....	1916
Hyslop, Octon Charles.....	2306 Calumet Ave., Chicago	R..	N. W. Univ., Med. Sch.....	1916
Jaffe, Joseph.....	1427 S. Homan Ave., Chicago	R..	Chgo. Coll. of M. & S.	1916
James, Thos. Franklin.....	Elmhurst, Ill.....	R..	Chgo. Coll. of M. & S.	1916
Keenan, Thomas P.....	1200 Belden Ave., Chicago	R..	Chgo. Coll. of M. & S.	1916
Keller, David H.....	Anna State Hospital, Anna, Ill.....	R..	Univ. of Penn., Med. Dept.....	1903
Kispert, Robert Wm.....	St. Luke's Hospital, Chicago	R..	Rush	1916
Kline, Ralph Glenn.....	Minn. City Hospital, Minneapolis, Minn.....	R..	Univ. of Ill., Coll. of Med.....	1916
Langworthy, Solon Mitchell.	1653 Park Ave., Chicago..	R..	Univ. of Ill., Coll. of Med.....	1916
Lawson, Gustave W.....	2100 Burling St., Chicago..	R..	Rush	1914
Leef, Isadore Abraham.....	2227 Potomac, Chicago....	R..	Chgo. Coll. of M. & S.	1916
Lindholm, Kenning O.....	4819 N. Washtenaw Ave., Chicago	R..	Loyola Univ., Sch. of Med.....	1916
Moffett, Reuben Alvord....	Wenona, Ill.....	R..	Univ. of Ill., Coll. of Med.....	1916
Morgenroth, Frank Chas....	2121 Warren Ave., Chicago	R..	Chgo. Coll. of M. & S.	1916
Odegard, Bernt.....	Fairview Hospital, Minneapolis, Minn.....	R..	Chgo. Coll. of M. & S.	1916
O'Grady, George E.....	1200 Belden Ave., Chicago	R..	Chgo. Coll. of M. & S.	1916
Olden, Perry A.....	3433 Wabash Ave., Chicago	R..	Howard Univ., Washington, D. C.	1914
Peterson, Alvin August.....	2953 Michigan Ave., Chicago	R..	N. W. Univ., Med. Sch.....	1916
Provost, Benjamin M.....	1138 N. Leavitt St., Chicago	R..	Loyola Univ., Sch. of Med.....	1916
Rogne, Conrad Oliver.....	Presbyterian Hosp., Chicago	R..	Rush	1916
Saari, John A.....	Presbyterian Hosp., Chicago	R..	Rush	1916

DIRECTORY OF PHYSICIANS—Continued.

Name	Address	Sch. of Pract.	College	Year of Grad.
Sachnovitz, Morris.....	1339 S. Racine Ave., Chicago	R..	Chgo. Coll. of M. & S.	1916
Savitsky, Louis.....	2340 Folk St., Chicago.....	R..	Chgo. Coll. of M. & S.	1916
Schmidt, Albert Wm.....	5421 S. Morgan, Chicago.....	R..	Chgo. Coll. of M. & S.	1916
Schuetzler, Arthur Frederick.....	3543 Bosworth Avenue, Chicago	R..	Bennett Med. Coll.	1915
Toothaker, Joel Edwin.....	Ladd, Illinois	R..	Univ. of Ill., Coll. of Med.	1916
Thurlow, Alfred Amos.....	Cullman, Alabama.....	R..	Univ. of Mich., Med. Dept.	1916
Turgasen, Francis Edw....	Park Hospital, Mason City Iowa.....	R..	Rush	1916
Van de Sand, Gerard Francis.....	120 S. Honore, Chicago.....	R..	Chgo. Coll. Med. & Surg.	1916
Walkowiak, Simon A.....	German Hosp., Chicago.....	R..	Chgo. Coll. of M. & S.	1916

January 31, 1917.

Bulkley, Nathan C.....	1414 Chicago Ave., Evanston, Ill.....	R..	Univ. of Minn., (Recip. Minn.)	1906
Haisfield, Abram Raymond.....	Englewood Hospital, Chicago	R..	Chgo. Coll. of M. & S.	1916
Mason, Ira MacSinn.....	3441 Vernon Ave., Chicago	R..	Chgo. Hosp., Coll. of Med.	1916
McNertney, Frank Daniel.....	2440 Lexington St., Chicago	R..	Chgo. Coll. of M. & S.	1916
Pathofsky, Abe.....	1057 W. Frank St., Chicago	R..	Chgo. Coll. of M. & S.	1916
Pendleton, H. H.....	Herrin, Ill.....	R..	Univ. of Louisville, Ky. (Recip. Ky.)	1910
Semerak, Caelestyn Benno.....	202 S. Lincoln St., Chicago.....	R..	Rush	1916

February 15, 1917.

Boguslawski, Stefan.....	1174 Milwaukee Ave., Chicago	R..	Geneva Univ., Switzerland	1899
Graff, John Harney.....	710 S. Lincoln St., Chicago	R..	Chgo. Coll. of M. & S.	1916
Lutz, Elmer H.....	Belle Plaine, Minn.....	R..	Chgo. Coll. of M. & S.	1914
Sullivan, Noreen Marie.....	4020 W. Adams St., Chicago	R..	Loyola Univ., Sch. of Med.	1916

February 28, 1917.

Geehan, Maurice Francis.....	1840 Warren Avenue, Chicago	R..	Chgo. Coll. of M. & S.	1915
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March 15, 1917.

Meacham, Hubert Franklin.....	Hemotin Mem. Hosp., Chicago	R..	Univ. of Ill., Coll. of Med.	1916
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March 31, 1917.

Baur, Felix J.....	3959 W. 26th St., Chicago	R..	Chgo. Coll. of M. & S.	1915
Bernard, Laurence.....	East St. Louis.....	R..	Univ. of Colo., Med. Dept.	1916
Bethouser, Joseph R.....	2153 Jackson Blvd., Chicago	R..	Loyola Univ., Sch. of Med.	1916
Bower, Albert Gordon.....	5545 Ingleside Ave., Chicago	R..	Rush	1916
Chapman, Vernon Alaska.....	Muskegon, Mich.....	R..	Baltimore Med. Coll., (Recip. Mich.)	1898
Cloud, Hiram B.....	803 W. Madison St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Creane, John Charles.....	3600 S. Kedzie Ave., Chicago	R..	St. Louis Univ.....	1916
Eterno, James.....	2048 W. Erie St., Chicago.....	R..	Loyola Univ., Med. School	1916
Felchner, Albert G.....	1542 N. Campbell Ave., Chicago	R..	Jenner	1916
Fink, A. Hamilton.....	Washington Park Hosp., Chicago	R..	Chgo. Coll. of M. & S.	1916
Hay, Edward F.....	Peoples Hospital, Akron, Ohio	R..	Loyola Univ., Sch. of Med.	1916

DIRECTORY OF PHYSICIANS—Continued.

Name	Address	Sch. of Pract.	Collège	Year of Grad.
Hill, John Curtis.....	4513 W. Jackson St., Chicago	R.	Ill. Med. Coll., (Recip. Ind.)	1908
Hommel, Placido R. V.....	2650 Ridge Ave., Evanston, Ill.	R.	Univ. of Ill. Coll. of Med.	1916
Hummon, Irwin F.....	Berwyn, Ill.	R.	Chgo. Coll. of M. & S.	1917
Jacobson, Guy Herbert.....	1844 W. Harrison St., Chicago	R.	Chgo. Coll. of M. & S.	1916
Jurgens, Henry	Quincy, Ill.	R.	Keokuk Med. Coll.	1896
Kulchinsky, Alexander.....	751 S. Robey St., Chicago	R.	Chgo. Coll. of M. & S.	1916
Little, Harvey Thomas.....	3325 Washington Blvd., Chicago	R.	Loyola Univ., Sch. of Med.	1916
Litz, Samuel J.....	2013 Congress St., Chicago	R.	Chgo. Coll. of M. & S.	1916
McKinney, Ira	Champaign, Ill.	R.	Chgo. Coll. of M. & S.	1916
Mack, Frank	1138 N. Leavitt St., Chicago	R.	Loyola Univ., Sch. of Med.	1916
Ochs, Arthur J.....	Oak Park, Ill.	R.	Chgo. Coll. of M. & S.	1915
Omens, David Vermont.....	933 S. Mansfield Ave., Chicago	R.	Loyola Univ., Sch. of Med.	1916
Ramsay, B. L.....	5929 West End Ave., Chicago	H.	Hahnemann Med. Coll. & Hosp.	1914
Rasck, Alfred G.....	731 Diversey Blvd., Chicago	R.	Loyola Univ., Sch. of Med.	1916
Rogers, James Bailey.....	Independence, Iowa	R.	Vanderbilt Univ., Nashville	1910
Rollins, Francis Theo.....	Steger, Ill.	R.	Chgo. Coll. of M. & S.	1916
Schiff, Nathan Samuel.....	606 W. 137th St., New York	R.	Univ. of Ill. College of Med.	1916
Schuster, Stephen A.....	1515 W. Monroe St., Chicago	R.	Rush	1916
Scott, Eldorado Watts.....	6123 Woodlawn Ave., Chicago	R.	Chgo. Hosp. Coll. of Med.	1916
Solomon, Samuel I.....	321 S. Wood St., Chicago	R.	Chgo. Coll. of M. & S.	1916
Solovay, Jacob	1437 S. Homan Ave., Chicago	R.	Chgo. Coll. of M. & S.	1917
Stakes, Bessie	1044 N. Francisco St., Chicago	R.	Loyola Univ., Sch. of Med.	1916
Swanson, Harry Theo.....	Robert Burns Hosp., Chicago	R.	Loyola Univ., Sch. of Med.	1916
March 31, 1917.				
Thomas, Earle H.....	6250 Lakewood Ave., Chicago	R.	Chgo. Coll. of M. & S.	1916
Thomas, Wm. Alexander....	Presbyterian Hosp., Chicago	R.	Rush	1916
Vertin, Joseph D.....	Oak Park, Ill.	R.	Loyola Univ., Sch. of Med.	1916
Warner, Earl A.....	Moline, Ill.	R.	Keokuk Med. P. & S.	1905
Wilson, David	710 S. Lincoln St., Chicago	R.	Chgo. Coll. of M. & S.	1916
April 16, 1917.				
Abramson, Benjamin W....	Anamoose, N. Dak.	R.	Chgo. Coll. of M. & S.	1916
Coleman, Mary	217 S. Homan Ave., Chicago	R.	Jenner	1916
Corso, Xavier	Wesley Memo. Hosp., Chicago	R.	State Univ. of Iowa	1916
Dawson, Albert Wilson....	4304 N. Kenmore Ave., Chicago	R.	Jenner	1915
Getty, Carroll Orwig.....	1454 W. Jackson St., Chicago	R.	Rush	1914
Kulvinsky, Max M.....	4514 Forrestville Ave., Chicago	R.	Rush	1916
Lusky, Herbert Otto.....	5520 Blackstone Ave., Chicago	R.	Rush	1916

DIRECTORY OF PHYSICIANS—Continued.

Name	Address	Sch. of Pract.	College	Year of Grad.
Mayer, Emil Valentine.....	St. Mary's Hosp., Detroit, Mich.	R..	Loyola Univ. Sch. of Med.....	1911
McDonnough, James M.....	2623 Wabansia Ave., Chicago	R..	Chgo. Coll. of M. & S.	1916
Meyers, Henry Albert.....	City Hospital, St. Louis, Mo.....	R..	St. Louis Univ.....	1915
Ogle, Hiram E.....	Donnellson, Iowa	R..	Chgo. Coll. of M. & S.	1917
Rawlings, Harvey Francis..	Urbana, Ill.	R..	Med. Dept., Univ. of Louisville	1910
Robinson, John Edwin.....	St. Luke's Hospital, Chicago	R..	Rush	1915
Schwartz, Fred F.....	734 S. Paulina St., Chicago	R..	Chgo. Coll. of M. & S.	1916
Sternberg, Abraham Tobias..	Gary, Ind.	R..	Univ. of Md.....	1916
Wren, Charles Wadison....	3149 Prairie Ave., Chicago	R..	Meharry Med. Coll....	1915
	April 30, 1917.			
Bibb, Charles W.....	3422 S. Park Ave., Chicago	R..	Meharry Med. Coll (Recip., Ky.)	1916
Cook, Edgar Carolum.....	Mendota, Ill.	R..	Harvard Med. Coll....	1917
Craig, Thomas Edwin.....	Colesburg, Ky.	R..	Univ. of Louisville, (Recip., Ky.)	1910
Hennessey, Russell A.....	4152 W. Wilcox Ave., Chicago	R..	Loyola Univ. Sch. of Med.....	1916
Powers, Francis L.....	7102 Cottage Grove Ave., care Dr. Donovan, Chi..	R..	Loyola Univ. Sch. of Med.....	1916
Sinclair, Arthur Duncan...	290 Danforth Ave., Toronto, Ontario, Canada	R..	Homeo. Med. Sch., Univ. of Minn.....	1908
	May 15, 1917.			
Clark, Elbert	Dept. of Anatomy, Univ. of Chgo., Chicago..	R..	Rush	1916
Kunce, Fay E.....	City & Co. Hospital, St. Paul, Minn.....	R..	Loyola Univ. Sch. of Med.....	1916
Spencer, Walter James.....	628 S. State St., Chicago	R..	Rush	1916
	May 31, 1917.			
Allis, Edward Karl.....	New Douglas, Ill.....	R..	Hahnemann, Chgo. ..	1905
			Ind. Univ. Sch. of Med. (Recip. Ind.)	1908
Anderson, Clyde Maxwell...	Manteno, Ill.	R..	Medico-Chir., Phila., Pa.	1916
Comee, William Clyde.....	4556 Magnolia Ave., Chicago	R..	Chgo. Coll. of P. & S. (Recip. Wis.)	1908
Dellarid, Leon J. P.....	3716 Lake Park Ave., Chicago	R..	Loyola Univ. Sch. of Med.....	1916
Fowler, J. Henry.....	Silvis, Ill.....	R..	American Med. Coll., St. Louis, (Recip. Mo.)	1913
Hardt, Leo Louis.....	Presbyterian Hosp., Chicago	R..	Rush	1917
Kegel, Arnold H.....	5765 Ridge Ave., Chicago	R..	Loyola Univ. Sch. of Med.....	1916
Nathom, DeLoa R.....	Dousman, Wis.	R..	Chgo. Coll. of M. & S.	1916
Weber, Joseph George.....	1715 N. Park Ave., Chicago	R..	Bennett	1915
	June 15, 1917.			
Adler, Arminium M.....	771 Gilpen Pl., Chicago...	R..	Coll. of P. & S., Colum- bia Univ., N. Y....	1901
Anderson, James Vernie...	3261 Fulton St., Chicago	R..	Loyola Univ. Sch. of Med.....	1916
Bartling, Dietrich L.....	728 N. Latrobe Ave., Chicago	R..	Chgo. Coll. of M. & S.	1917
Berg, Edward Paul, Jr.....	3706 N. Paulina St., Chicago	R..	Chgo. Hosp. of Med..	1916

DIRECTORY OF PHYSICIANS—Continued.

Name	Address	Sch. of Pract. College	Year of Grad.
Beverly, Squire S.....	1910 W. Adams St., Chicago	R..Chgo. Coll. of M. & S.	1917
Buxbaum, Henry	2058 Grand Ave., Chicago	R..Chgo. Coll. of M. & S.	1917
Chouinard, Clarence R.....	1928 N. Tripp Ave., Chicago	R..Chgo. Coll. of M. & S.	1917
Chung, Margaret Jessie.....	1712 W. Adams St., Chicago	R..Coll. of P. & S., Univ. So. Calif.	1916
Chynoweth, William R.....	317 S. Winchester St., Chicago	R..Chgo. Coll. of M. & S.	1917
Clayton, Herman C.....	1854 Monroe St., Chicago	R..Chgo. Coll. of M. & S.	1917
Davenport, John Dryden.....	2255 Calumet Ave., Chicago	R..Chgo. Coll. of M. & S.	1917
Emery, Chris E.....	1834 Jackson Blvd., Chicago	R..Chgo. Coll. of M. & S.	1917
England, John Franklin.....	3872 Cottage Grove Ave., Chicago	R..Univ. of Arkansas (Recip. Ark.)	1912
Feightner, Robert Lloyd.....	816 S. Ashland Blvd., Chicago	R..Chgo. Coll. of M. & S.	1917
Ferrell, J. Vernon.....	1910 W. Adams St., Chicago	R..Chgo. Coll. of M. & S.	1917
Fogo, Hugh M.....	323 S. Ashland Blvd., Chicago	R..Rush	1917
Fredrickson, Gereon	331 S. Ashland Blvd., Chicago	R..Chgo. Coll. of M. & S.	1917
Glaubitz, Bruno J. W.....	2811 Cottage Grove Ave., Chicago	H..Hahnemann Med. Coll. of Chgo.	1917
Gowdy, Ralph Averill.....	1515 W. Monroe St., Chicago	R..Chgo. Coll. of M. & S.	1917
Harrington, Ethel Regan.....	6559 Cottage Grove Ave., Chicago	R..Rush	1917
Hubbell, Joseph A.....	1515 W. Monroe St., Chicago	R..Chgo. Coll. of M. & S.	1917
Jahp, Minnie	1201 S. Main St., Jacksonville, Ill.	R..Chgo. Hosp. Coll. of Med.	1916
Kanter, Aaron Elias.....	1641 Flournoy St., Chicago	R..Rush	1917
Keshishian, Sarkio K.....	Detroit, Mich.	R..Loyola Univ. Sch. of Med.	1916
Klein, George A.....	1907 Wash. Blvd., Chicago	R..Loyola Univ. Sch. of Med.	1916
Krugmeier, Carl E.....	316 S. Ashland Ave., Chicago	R..Chgo. Coll. of M. & S.	1917
Lawson, John Carl.....	1440 W. Jackson Blvd., Chicago	R..Chgo. Coll. of M. & S.	1917
Levishon, Edmund D.....	Room 1349, 10 S. LaSalle, Chicago	R..Bennett	1910
Lieffers, Harry	6101 S. Morgan St., Chicago	R..Chgo. Coll. of M. & S.	1917
May, Edwin Ralph.....	935 N. LaSalle St., Chicago	R..Univ. of Ill. Coll. of Med.	1917
McCrary, George Wilford.....	1619 W. Adams St., Chicago	R..Chgo. Coll. of M. & S.	1917
Moles, Joseph	1057 W. Grand Ave., Chicago	R..Chgo. Coll. of M. & S.	1917
Neumann, Arthur Joseph.....	1955 Jackson Blvd., Chicago	R..Chgo. Coll. of M. & S.	1917
Norconk, Ward Hermann.....	1440 W. Jackson Blvd., Chicago	R..Chgo. Coll. of M. & S.	1917
Olsen, Clarence Wm.....	935 N. LaSalle St., Chicago	R..Univ. of Ill. Coll. of Med.	1917
Paul, Daniel Frank.....	2936 Lake Park Ave., Chicago	H..Hahnemann Med. Coll.	1917
Preston, James C.....	Smalley, Ky.	R..Chgo. Coll. of M. & S.	1917
Pruner, A. Caskie.....	1035 E. 47th St., Chicago	R..Loyola Univ. Sch. of Med.	1916

DIRECTORY OF PHYSICIANS—Continued.

Name	Address	Sch. of Pract.	College	Year of Grad.
Reinsch, Frank	4641 N. Kilbourn Ave., Chicago	R.	Chgo. Coll. of M. & S.	1917
Rohow, Fred Merton.....	816 Ashland Ave., Chicago	R.	Chgo. Coll. of M. & S.	1917
Rundstrom, Johan Alfred....	433 Roslyn Pl., Chicago	R.	Karolinska Inst., Stockholm, Sweden.	1892
Sered, Harry	29th St. & Elliston Ave., Chicago	R.	Univ. of Ill. Coll. of Med.	1917
Serna, Mathias Aguire.....	1939 W. Congress St., Chicago	R.	Chgo. Coll. of M. & S.	1916
Shafer, Bertha Meserve.....	502 S. Lincoln St., Chicago	R.	Rush	1917
Shafer, Leland Chas.....	Michigan Ave., Chicago	R.	Rush	1917
Silver, Maurice Jacob.....	1510 S. Sawyer Ave., Chicago	R.	Rush	1916
Stanton, Donald Ion.....	1848 W. Monroe St., Chicago	R.	Chgo. Coll. of M. & S.	1917
Stewart, Lena Madge.....	705 S. Ashland Blvd., Chicago	R.	Chgo. Coll. of M. & S.	1917
Swinehart, Bertram Oliver.	1902 Jackson Blvd., Chicago	R.	Chgo. Coll. of M. & S.	1917
Tenczar, Francis J.....	617 N. Racine Ave., Chicago	R.	Chgo. Coll. of M. & S.	1917
Tullisalo, Oscar W.....	149 W. Superior St., Chicago	R.	Rush	1917
Vaughan, Benj. Harrison...	1850 W. Monroe St., Chicago	R.	Chgo. Coll. of M. & S.	1917
Variable, Geo. Lyle.....	2100 Burling St., Chicago	R.	Rush	1917
Viser, John Wm.....	26th & California, Chicago	R.	Rush	1917
Wallschlaeger, Geo. G.....	2154 Jackson Blvd., Chicago	R.	Chgo. Coll. of M. & S.	1917
Webb, John Lester.....	Carbon Hall, Ohio.....	H.	Hahnnemann, Chgo.	1917
Williams, Mary Edith.....	1700 Jackson Blvd., Chicago	R.	Univ. of Ill.	1917
June 23, 1917.				
Adams, Mary F.....	1789 Ogden Ave., Chicago	R.	Chgo. Coll. of M. & S.	1916
Alexander, Chas. Burton...	6337 Harvard Ave., Chicago	R.	Loyola Univ. Sch. of Med.	1917
Alloway, Christine LeGresley	424 S. Cicero Ave., Chicago	R.	Chgo. Hosp. Coll. of Med.	1915
Anderson, Geo. Herman....	200 S. Ashland Blvd., Chicago	R.	Rush	1917
Arnold, James Eddy.....	311 S. Ashland Blvd., Chicago	R.	Rush	1917
Arnold, Ralph Nordack....	Greenfield, Ind.....	H.	Hahnnemann, Chgo.	1917
Axelrad, Samuel	1318 S. Kedvale Ave., Chicago	R.	Loyola Univ. Sch. of Med.	1917
Baker, Earl Elias.....	319 S. Winchester Ave., Chicago	R.	Rush	1917
Baylor, Frank W.....	4514 N. Racine Ave., Chicago	R.	Hosp. Coll. of Med., Ky.	1904
Belau, Laetitia.....	732 Prior Place, Chicago	R.	Chgo. Coll. of M. & S.	1916
Billik, Cyril D.....	735 Fullerton Ave., Chicago	R.	Rush	1917
Birkland, Olav Nelson.....	Martell, Wis.	R.	N. W. U., Med. Sch.	1917
Bishop, Earl V.....	Belvidere, Ill.	R.	Chgo. Coll. of M. & S.	1916
Blackburn, Guy Albert....	816 S. Ashland Ave., Chicago	R.	Chgo. Coll. of M. & S.	1917
Blackburn, Paul M.....	816 S. Ashland Ave., Chicago	R.	Chgo. Coll. of M. & S.	1917
Blum, Joseph Marcus.....	1057 N. Oakley Blvd., Chicago	R.	Univ. of Louisville	1908
Boren, Clarence Henry.....	2901 Prairie Ave., Chicago	R.	N. W. U., Med. Sch.	1917

DIRECTORY OF PHYSICIANS—Continued.

Name	Address	Sch. of Pract.	College	Year of Grad.
Brinkman, Waldo F.....	332 S. LaSalle St., Chicago	R..	Loyola Univ. Sch. of Med.....	1917
Butler, Wm. Joseph.....	3834 Polk St., Chicago	R..	Rush	1917
Calvin, Okal M.....	1454 Hyde Pk. Blvd., Chicago	R..	Hahnemann, Chgo....	1917
Cannon, Frank Mullen....	850 Irving Pk. Blvd., Chicago	R..	Chgo. Coll. of M. & S.	1917
Carothers, Herbert C.....	131 N. Austin Ave., Chicago	R..	Univ. of Ill. Coll. of Med.....	1917
Cassery, Edw. Athelstane..	1900 Polk St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Chiasson, Timothy L.....	312 Marshfield Ave., Chicago	R..	Loyola Univ. Sch. of Med.....	1916
Christofferson, Olaf H.....	200 S. Ashland Blvd., Chicago	R..	Rush	1917
Cohan, Sol George.....	1533 S. Central Pk. Ave., Chicago	R..	Chgo. Coll. of M. & S.	1917
Conway, Stephen J.....	1906 Ogden Ave., Chicago	R..	Chgo. Coll. of M. & S.	1917
Cooper, Homer Percival....	249 N. Hoyne Ave., Chicago	R..	Rush	1917
Corper, Franklin Joseph...	5847 Kenmore Ave., Chicago	R..	N. W. U., Med. Sch..	1917
Courrier, Ernest A.....	1449 Milwaukee Ave., Chicago	R..	Chgo. Hosp. Coll. of Med.....	1917
Cunningham, Malcolm	Springfield, Ill.	R..	Chgo. Coll. of M. & S.	1917
Dahmer, Egon Robert.....	5026 Sheridan Rd., Chicago	R..	Chgo. Coll. of M. & S.	1917
Dame, Louis Paul.....	337 S. Kilbourn Ave., Chicago	R..	Univ. of Ill. Coll. of Med.....	1917
Davies, Raymond Evan.....	1832 W. Adams St., Chicago	R..	Rush	1917
Davis, Celia	1624 W. Taylor St., Chicago	R..	Chgo. Coll. of M. & S.	1917
DeFreitas, Jesse A.....	Springfield, Ill.	R..	Chgo. Coll. of M. & S.	1917
DeTuncz, George P.....	1840 Selby Ave., St. Paul, Minn.....	H..	Hahnemann, Chgo....	1917
Dilley, Harry Horace.....	1922 Adams St., Chicago	R..	Rush	1917
Dunlavy, Harry Coleman...	2901 Prairie Ave., Chicago	R..	N. W. U., Med. Sch..	1917
Edson, Henry Scammon....	2449 S. Dearborn St., Chicago	R..	Rush	1917
Egan, Thomas Martin.....	5935 Prairie Ave., Chicago	R..	Loyola Univ. Med. Sch.	1915
Fainer, Emanuel Montague.	1243 S. Kedvale Ave., Chicago	R..	Chgo. Hosp. Coll. of Med.....	1917
Farman, Geo. Franklin.....	1753 W. Congress St., Chicago	R..	Rush	1917
Fein, Alfred L.....	Englewood Hosp., Chicago	R..	Loyola Univ. Sch. of Med.....	1917
Felsher, Wolf Zachary....	1701 W. Grand Ave., Chicago	R..	Chgo. Coll. of M. & S.	1917
Finberg, Joseph	630 S. Marshfield Ave., Chicago	R..	Chgo. Coll. of M. & S.	1917
Folsom, Shirley D.....	Rock Island, Ill.	H..	Hahnemann, Chgo....	1917
Foran, Francis Leo.....	4000 W. Harrison St., Chicago	R..	Rush	1917
Fraser, Stuart E.....	3253 Indiana Ave., Chicago	R..	Hahnemann, Chgo....	1917
Freeman, Roy H.....	163 N. Elizabeth St., Chicago	R..	Loyola Univ. Sch. of Med.....	1917
Gelger, Ulysses Simpson...	1515 Monroe St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Gier, Wilber Joseph.....	Helper, Kan.	H..	Hahnemann, Chgo....	1917
Gieseler, Rudolph J.....	General Hospital, Cincinnati, Ohio	R..	Rush	1917

 DIRECTORY OF PHYSICIANS—Continued.

Name	Address	Sch. of Pract.	College	Year of Grad.
Glatt, Morris A.....	3156 Douglas Blvd., Chicago	R..	Loyola Univ. Sch. of Med.....	1917
Gleason, Michael Hugh.....	1515 W. Monroe St., Chicago	R..	Chgo. Coll. of M. & S.....	1917
Glick, Simon Benjamin.....	2733 Michigan Ave., Chicago	H..	Hahnemann, Chgo.....	1917
Goetler, Ralph Frank.....	Michael Reese Hosp., Chicago	R..	St. Louis Univ. Med. Sch.	1915
Golub, Samuel	934 W. 12th St., Chicago	R..	Univ. of Ill. Coll. of Med.....	1917
Gorechi, Helen Eleanore.....	2634 Cortez St., Chicago	R..	Loyola Univ. Sch. of Med.....	1917
Gorov, Ida Ruth.....	3940 Calumet Ave., Chicago	R..	Chgo. Hosp. Coll. of Med.....	1917
Gran, Albert Godfrey.....	2923 Michigan Ave., Chicago	R..	N. W. U., Med. Sch.....	1917
Groener, Otto Emil.....	712 N. Paulina St., Chicago	R..	Jenner	1916
Guy, Spencer Dewitt.....	Colona, Mich.	R..	Rush	1917
Hancock, Ernest Wilber- fore	2923 Michigan Ave., Chicago	R..	N. W. U., Med. Sch.....	1917
Hans, Edward	830 Wellington Ave., Chicago	R..	Chgo. Coll. of M. & S.....	1916
Hansen, Henry Charles.....	633 N. Trumbull Ave., Chicago	R..	Chgo. Coll. of M. & S.....	1917
Harrell, Roy N.....	232 S. Ashland Blvd., Chicago	R..	Loyola Univ. Sch. of Med.....	1917
Hartwell, Basil Orman.....	628 Belmont Ave., Chicago	R..	Univ. of Ill. Coll. of Med.....	1917
Herrmann, Carl Bernhard...	944 E. 47th St., Chicago	R..	Chgo. Hosp. Coll. of Med.....	1917
Hicks, Clarence John, Jr...	920 Pearl St., Denver, Colo.	R..	Rush	1917
Hoberecht, Carl Albert.....	Carleton Bldg., St. Louis, Mo.....	R..	Wash. Univ. (Recip., Mo.).....	1909
Hodes, Jacob Ellis.....	736 S. Ashland Blvd., Chicago	R..	Chgo. Coll. of M. & S.....	1917
Holland, David Lewis.....	163 N. Elizabeth St., Chicago	R..	Loyola Univ. Sch. of Med.....	1917
Hoodlett, Jacob James.....	137 E. Columbus St., Nelsonville, Ohio	H..	Hahnemann, Chgo.....	1917
Horning, Danfel L.....	3435 Van Buren St., Chicago	H..	Hahnemann, Chgo.....	1917
Howard, William H.....	1360 Fulton St., Chicago	R..	Loyola Univ. Sch. of Med.....	1917
Hunter, Paul Mallers.....	Lakota Hotel, Chicago...	R..	Chgo. Coll. of M. & S.....	1917
Inslow, William DePrez....	6142 Ingleside Ave., Chicago	R..	Rush	1917
Ireland, Jay	609 S. Hoyne Ave., Chicago	R..	Rush	1917
Itzkowitz, Myron I.....	1336 Newberry Ave., Chicago	R..	Chgo. Coll. of M. & S.....	1917
Jacobs, Milton	544 E. 10th St., Chicago	R..	Chgo. Hosp. Coll. of Med.....	1917
Jelliffe, Martin B.....	217 S. Ashland Blvd., Chicago	R..	Univ. of Ill.....	1917
Johannesson, Carl Johan...	4800 Prairie Ave., Chicago	R..	Loyola Univ. Sch. of Med.....	1917
Johnson, Henry Curtis.....	1922 W. Adams St., Chicago	R..	Rush	1917
Johnston, Geo. Frederick...	Hampton, Iowa	R..	Chgo. Coll. of M. & S.....	1917
Johnston, Howard Hubbard.	725 S. Lincoln St., Chicago	R..	Chgo. Coll. of M. & S.....	1917

DIRECTORY OF PHYSICIANS—Continued.

Name	Address	Sch. of Pract.	College	Year of Grad.
Jones, Harold Oakland.....	1832 W. Adams St., Chicago	R..	Rush	1917
Joranson, Yngve	6423 Ingleside Ave., Chicago	R..	Rush	1917
Kennedy, James Arthur.....	3763 Wabash Ave., Chicago	R..	Meharry Med. Sch.	1916
Kepner, Raymond Brandt.....	319, S. Winchester Ave., Chicago	R..	Rush	1917
Khafagy, Ahmed M.....	332 W. Chicago Ave., Chicago	R..	Chgo. Coll. of M. & S.	1916
Kosanke, Frederic E.....	848 King Place, Chicago	R..	Hahnemann, Chicago.	1917
Kupke, Edward Henry W.....	136 S. Lincoln St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Lahnners, Thomas.....	221 S. Ashland Blvd., Chicago	R..	Rush	1917
Langlois, Harvey Louis.....	1458 Jackson Blvd., Chicago	R..	Univ. of Ill., Coll. of Med.	1917
Leiser, Samuel Brody.....	702 So. Ashland Ave., Chicago	R..	Univ. of Ill., Coll. of Med.	1917
Levin, Eli.....	3411 Grapevine St., Ind. Harbor, Indiana.....	R..	Chgo. Coll. of M. & S.	1917
Levinson, Yale Norman.....	4141 Clarendon Ave., Chicago	R..	Rush	1917
Levinthal, Daniel Harold.....	1251 Harding Ave., Chicago	R..	Chgo. Coll. of M. & S.	1917
Levy, Samuel.....	820 Read Court, Chicago.....	R..	Hahnemann, Chicago.	1917
Liederman, Moses.....	2658 W. Thomas St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Lovellette, Count Rocham- beau	716 E. 51st St., Chicago.....	R..	Univ. of Ill., Coll. of Med.	1917
Macbeth, Chester St. Julian.....	525 E. 34th Place, Chicago.....	R..	N. W. U. Med. Sch.	1917
Marbel, Myer M.....	1431 W. Congress St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Margolis, David Jacob.....	1856 S. Avers Ave., Chicago	R..	Rush	1917
Marsden, Bertram A.....	3646 Grand Blvd., Chicago	H..	Hahnemann, Chicago.	1917
Martin, Harry Paul.....	6142 Ingleside Ave., Chicago	R..	Rush	1916
Martin, Leon Wade.....	2100 Burling St., Chicago	R..	Univ. of Ill., Coll. of Med.	1917
Martini, Walter Curt.....	1515 W. Monroe St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Maxwell, G. Edward.....	Springfield, Ill.....	R..	Chgo. Coll. of M. & S.	1917
Mayfield, Alfred Lisle.....	311 S. Ashland Blvd., Chicago	R..	Rush	1917
McCarthy, Patrick Thos.....	200 S. Ashland Blvd., Chicago	R..	Rush	1917
McCrary, Warren Eucell.....	2923 Michigan Ave., Chicago	R..	N. W. U., Med. Sch.	1917
McGill, Ernest Chas.....	1832 W. Adams St., Chicago	R..	Rush	1917
McLaughlin, Charles.....	New Berlin, Ill.....	E..	Ecletic Med. Coll., Ohio.....	1917
Meissler, Harry.....	1007 W. 14th St., Chicago	R..	N. W. U., Med. Sch.	1917
Meister, Earl E.....	15 S. Honore St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Mix, Brouislaus J.....	429 N. Ashland Ave., Chicago	R..	Loyola Univ., Sch. of Med.	1917
Moorhead, Louis David.....	3517 Jackson Blvd., Chicago	R..	Rush	1917
Morcour, Thomas Jr.....	2901 Prairie Ave., Chicago	R..	N. W. U., Med. Sch.	1917
Munns, Shirley Bogart.....	Oxford, Ohio.....	R..	N. W. U., Med. Sch.	1917
Murphy, Orley H.....	Abingdon, Ill.....	R..	Chgo. Coll. of M. & S.	1917
Nathanson, Israel.....	3456 W. 12th St., Chicago.....	R..	Loyola Univ., Sch. of Med.	1917
Neseth, Ole Sever.....	Skyberg, Minn.....	R..	N. W. U., Med. Sch.	1917
O'Connell, John T., Jr.....	1338 Birchwood Ave., Chicago	R..	Loyola Univ., Sch. of Med.	1917

DIRECTORY OF PHYSICIANS—Continued.

Name	Address	Sch. of Pract.	College	Year of Grad.
O'Connor, Peter Paul.....	235 S. Lincoln St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Ortmayer, Marie.....	4557 Ellis Ave., Chicago	R..	Rush	1917
Pangerl, Carl.....	221 S. Wood St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Pearlman, Samuel James.....	214 E. 37th St., Chicago	R..	Rush	1917
Pedersen, Christian Berg.....	676 Diversey Blvd., Chicago	R..	Chgo. Coll. of M. & S.	1917
Perry, Eugene B.....	3230 W. Monroe St., Chicago	R..	Rush	1917
Pilot, Isadore.....	1316 S. Millard Ave., Chicago	R..	Univ. of Ill.	1917
Polishuck, Isidore S.....	1752 W. 12th St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Probststein, Jacob.....	1422 W. 61st St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Ramos, Rafael Alpuche.....	51 Horton Ave., Battle Creek, Mich.	R..	Univ. of Ill. Coll. of Med.	1917
Rentfro, Chas. Curtis.....	1841 W. Adams St., Chicago	R..	Chgo. Coll. of M. & S.	1916
Rowell, Carlton L.....	1515 Monroe St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Royster, Hollace Rector.....	331 S. Ashland Blvd., Chicago	R..	Univ. of Ill. Coll. of Med.	1917
Salpas, Spiro M.....	720 Blue Island Ave., Chicago	R..	Univ. of Ill. Coll. of Med.	1917
Sanders, Geo. Edward.....	1458 Jackson Blvd., Chicago	R..	Univ. of Ill. Coll. of Med.	1917
Sandler, Arthur Saul.....	842 N. Oakley Blvd., Chicago	R..	Loyola Univ., Sch. of Med.	1917
Satek, Benjamin D.....	5141 S. Lincoln St., Chicago	R..	Chgo. Hosp., Coll. of Med.	1917
Sauer, Frank Joseph.....	1851 S. Racine Ave., Chicago	R..	Univ. of Ill. Coll. of Med.	1917
Sawyer, Grace Mozelle.....	705 S. Ashland Blvd., Chicago	R..	Chgo. Coll. of M. & S.	1917
Schlegel, Edward Henry.....	323 S. Ashland Blvd., Chicago	R..	Rush	1917
Schmidt, Erwin Rudolph.....	2043 Cleveland Ave., Chicago	R..	Wash. Univ., Sch. of Med.	1916
Schols, Fred H.....	620 W. 35th St., Chicago	P M.	Chgo. Coll. of M. & S.	1910
Schultz, Harry L.....	3044 S. Kildare Ave., Chicago	R..	Chgo. Coll. of M. & S.	1917
Schwartz, F. Adele.....	3135 Vernon Ave., Chicago	H..	Hahnemann, Chicago	1917
Segal, George M.....	4927 Champlain Ave., Chicago	R..	Chgo. Coll. of M. & S.	1917
Shacoff, Henry.....	Rush Med. Coll., Chicago	R..	Rush	1917
Shkodnick, Gussie.....	1401 So. Cal. Ave., Chicago	R..	Chgo. Coll. of M. & S.	1917
Sigworth, Dwight Chace.....	221 S. Ashland Ave., Chicago	R..	Rush	1917
Skembare, Emanuel C.....	1148 W. Taylor St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Sloan, LeRoy Hendrick.....	Cook County Hospital, Chicago	R..	Rush	1917
Slobe, Frederick William.....	311 S. Ashland Blvd., Chicago	R..	Rush	1917
Small, James Craig.....	320 S. Leavitt St., Chicago	R..	Univ. of Ill. Coll. of Med.	1917
Smith, Byron Joseph.....	328 S. Wood St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Smith, Josephine Eliz.....	430 W. Ashland Ave., Chicago	R..	Rush	1917
Sondel, Herman Martin.....	2125 Alice Pl., Chicago	R..	Loyola Univ., Sch. of Med.	1917
Sounenfeld, Frederick E.....	3420 N. Lincoln St., Chicago	R..	Chgo. Hosp., Coll. of Med.	1917
Stam, Nicholas Cornelius.....	Box 72, R. 1, Blue Island, Ill.	R..	Rush	1917
Stefanski, Helen F.....	8419 Brandon Ave., Chicago	R..	Loyola Univ., Sch. of Med.	1917

DIRECTORY OF PHYSICIANS—Continued.

Name	Address	Sch. of Pract.	College	Year of Grad.
Steiner, Irving W.....	Harvey, Ill.....	R..	Rush	1917
Stevenson, James.....	4484 Kasson Ave., Chicago	R..	Univ. of Ill.....	1917
Stoeckinger, Joseph A.....	1433 Claremont Ave., Chicago	R..	Loyola Univ., Sch. of Med.....	1917
Stotter, Arthur Lesley.....	2551 N. Clark St., Chicago	R..	Rush	1917
Sutch, Armand Kredell.....	142 W. 112 Pl., Chicago..	R..	Univ. of Ill., Sch. of Med.....	1917
Sweet, Winfield Carey.....	Anatomy Bldg., Univ. of Chgo., Chicago..	R..	Rush	1917
Sykes, Newman Marlon.....	1635 Walnut St., Chicago..	R..	Univ. of Ill., Coll. of Med.....	1917
Szwajkart, Adam Leo.....	3535 W. Diversey Blvd., Chicago	R..	Univ. of Ill., Coll. of Med.....	1917
Thatcher, Harvey Shepard..	709 S. Ashland Blvd., Chicago	R..	Rush	1917
Thayer, Wilbur F., Jr.....	4742 N. Bernard St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Torpin, Richard Ivan.....	2449 Wash. Blvd., Chicago	R..	Rush	1917
VanSlyke, Lloyd Hermanus..	1438 Jackson Blvd., Chicago	R..	Chgo. Coll. of M. & S.	1916
Volini, Italo Fred.....	2929 Wash. Blvd., Chicago	R..	Rush	1917
Warzewski, Edward Henry..	1238 Noble St., Chicago..	R..	Rush	1917
Washburn, Arthur Mansfield.	311 S. Asland Ave., Chicago	R..	Rush	1917
Weiss, Amy.....	1756 W. Division St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Welden, Edmund Arnioo....	101 E. Front St., Wheaton, Ill.....	R..	Univ. of Ill., Coll. of Med.....	1917
Weldy, Claude.....	2207 W. VanBuren St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Weston, Burton Raymond..	Presbyterian Hospital, Chicago	R..	Rush	1917
Whitten, Kathryn Marion..	1738 W. Congress St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Wilson, Uthie Ray.....	1948 W. Adams St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Winnard, W. F. Ralston....	2936 Lake Park Ave., Chicago	H..	Hahnmann, Chicago.	1917
Wojniak, Frank.....	328 S. Winchester Ave., Chicago	R..	Univ. of Ill., Coll. of Med.....	1917
Woodward, Lee Roy.....	5545 Maryland Ave., Chicago	R..	Rush	1917
Worthington, Ernest J....	2020 W. Adams St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Wright, Emmett LeRoy....	4618 Calumet Ave., Chicago	R..	Chgo. Coll. of M. & S.	1916
Yampolsky, Morris D.....	3827 Vincinnes Ave., Chicago	R..	Chgo. Hosp., Coll. of Med.....	1917
Youngs, Cyril Amos.....	2231 Calumet Ave., Chicago	R..	N. W. U. Med. Sch..	1917
June 25, 1917.				
Arp, A. Henry.....	Moline, Ill.....	R..	Univ. of Penn.....	1917
Aton, Maurice Wm.....	1358 Washington Blvd., Chicago	R..	Loyola Univ., Sch. of Med.....	1917
Benjamin, Harry Webb....	432 S. Lincoln St., Chicago	R..	Univ. of Ill., Coll. of Med.....	1917
Burrows, Samuel Jacob....	921 Spruce St., Philadelphia, Pa.....	R..	Jefferson Med. Coll..	1917
Cole, Lucius.....	Austin Ave. & Ontario St., Oak Park, Illinois.....	R..	Jenner	1917
Czajkowski, Stephen.....	3103 N. Monticello Ave., Chicago	R..	Jenner	1917
Deutsch, Emil.....	1575 W. Monroe St., Chicago	R..	Jenner	1917
Dollahan, Martin Leland....	1753 W. Congress St., Chicago	R..	Rush	1917

DIRECTORY OF PHYSICIANS—Continued.

Name	Address	Sch. of Pract.	College	Year of Grad.
Elsen, Matt.....	2431 S. Dearborn St., Chicago	R..	N. W. U., Med. Sch.	1917
Harrington, Kathleen R....	6559 Cottage Grove Ave., Chicago	R..	Rush	1917
H'Doubler, Francis Todd....	2043 Cleveland, Chicago	R..	Harvard Med. School	1917
Hedge, Harry Malcome....	4928 Kenmore Ave., Chicago	R..	N. W. U., Med. Sch.	1917
Holden, David.....	828 S. Marsfield Ave., Chicago	R..	Jenner	1917
Jindra, Anthony John.....	3149 W. 22nd St., Chicago	R..	N. W. U., Med. Sch.	1917
Jones, C. Carroll.....	323 N. Waller Ave., Chicago	R..	Loyola Univ., Sch. of Med.	1917
Lewis, Julian Herman.....	3763 Wabash, Chicago	R..	Rush	1917
Mars, Hartley Farnham....	Newport, Minn.	R..	Univ. of Ill.	1917
Matlock, Chas. Wm.....	1940 Park Ave., Chicago	R..	Loyola Univ., Sch. of Med.	1917
McCoy, Henry James.....	Amboy, Ill.	R..	Univ. of Ill., Coll. of Med.	1917
McGuire, Ralph Dean.....	5000 S. Ashland Ave., Chicago	R..	Loyola Univ., Med. Sch.	1916
Moore, John Harris.....	3127 Calumet Ave., Chicago	R..	N. W. U., Med. Sch.	1917
Noskin, Harry.....	1130 S. Francisco Ave., Chicago	R..	Jenner	1917
Ripley, Howard M.....	2646 Calumet Ave., Chicago	R..	Hahneemann, Chicago	1917
Solem, George Oliver.....	1753 W. Congress St., Chicago	R..	Rush	1917
Urban, John Ignatius.....	2211 Powell Ave., Chicago	R..	Jenner	1917
Watts, Clyde Franklin.....	Wilmore, Ky.	R..	Rush	1917
Yaffe, George.....	1520 W. Madison St., Chicago	R..	Jenner	1917
June 27, 1917.				
Bothman, Louis.....	702 S. Ashland Blvd., Chicago	R..	Rush	1917
Crawford, Lucy M.....	2716 Calumet Ave., Chicago	H..	Hahneemann, Chicago	1917
Oden, Rudolph J. E.....	218-20 Mather Bldg., Cadillac, Michigan	R..	Univ. Med. Coll., Kansas City, Mo. (Recip. Iowa)	1906
Stavrou, George P.....	606 Blue Island Ave., Chicago	R..	Natl. Univ., Athens, Greece	1905
Stobie, Robert Emmett.....	253 W. 22nd St., Chicago	R..	N. W. U., Med. Sch.	1917
Wheatley, Edward J.....	Nat'l Soldiers' Home, Danville, Ill.	R..	Drake, Univ. Iowa (Recip. Iowa)	1910
Young, Frank Walls.....	4235 Sheridan Rd., Chicago	R..	N. W. U., Med. Sch.	1917
June 30, 1917.				
Abel, Joseph Abner.....	Mercy Hospital, Chicago	R..	N. W. U., Med. Sch.	1917
Baker, Clark Everett.....	Calremont, Ill.	R..	Vanderblit Univ., N. Y.	1917
Clinton, Lloyd Brandon....	419 S. Gamson Ave., Carthage, Missouri	R..	N. W. U., Med. Sch.	1917
Gapinski, Leonard B.....	St. Marys Hosp., Chicago	R..	Chgo. Coll. of M. & S.	1916
Grant, John Francis.....	5038 Vincennes Ave., Chicago	R..	N. W. U., Med. Sch.	1917
Jerde, Inglebrecht.....	1138 N. Leavitt St., Chicago	R..	Chgo. Coll. of M. & S.	1917
Karatz, Morris Baron.....	702 Ashland Blvd., Chicago	R..	Univ. of Ill., Coll. of Med.	1917
Lefkoff, Theresa Gustaff...	2511 W. Division, Chicago	R..	Chgo. Coll. of M. & S.	1917
Lyon, Will Ferson.....	Elkhorn, Wis.	R..	Rush	1917
Slivka, John.....	3062 Sackett Ave., Cleveland, Ohio	R..	Chgo. Coll. of M. & S.	1916
York, Charles E.....	2811 Cottage Grove, Chicago	R..	Hahne Med. Coll. Hosp.	1917
DeFeo, Amos.....	5005 N. Ashland Ave., Chicago	R..	Chgo. Coll. of M. & S.	1915

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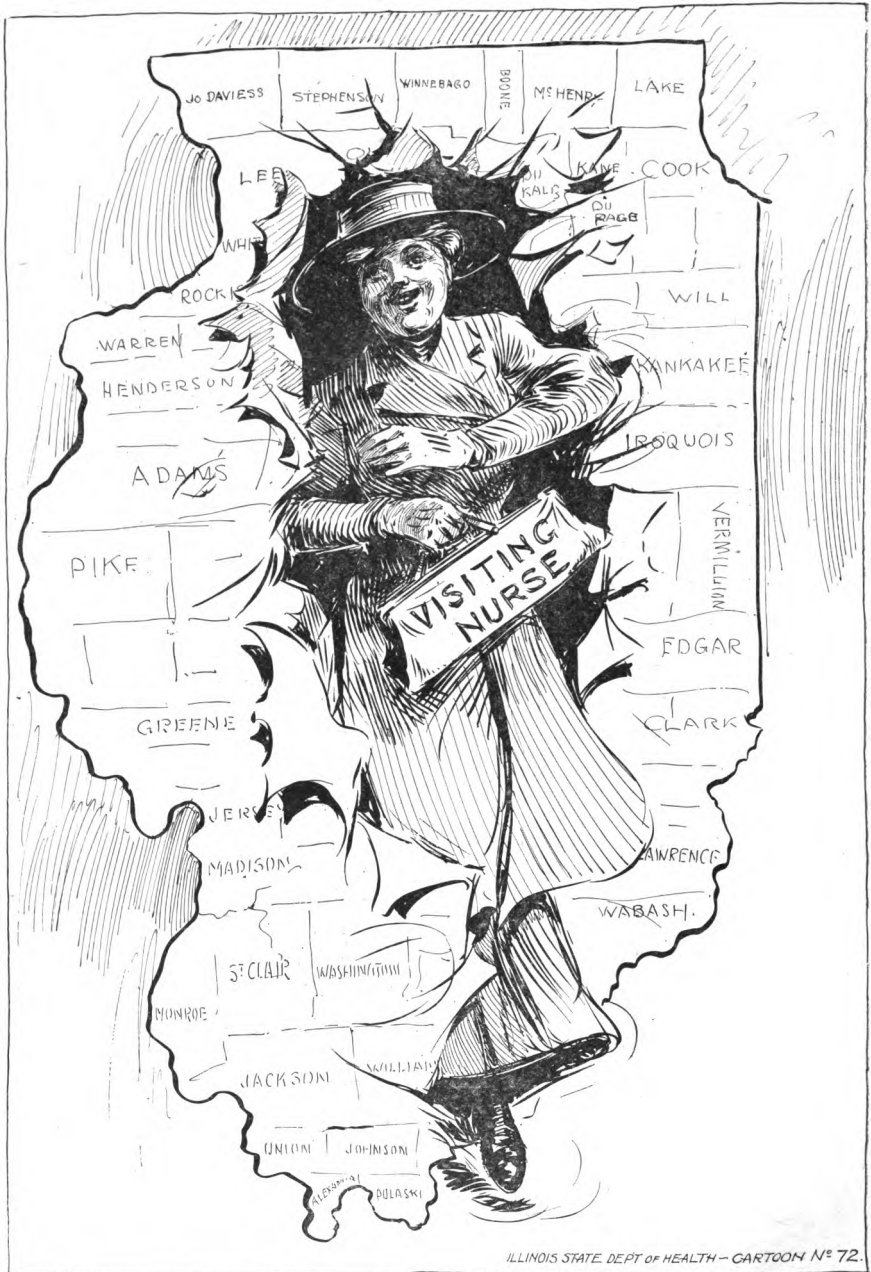
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A GREAT ILLINOIS CENTENNIAL.



ILLINOIS STATE DEPT. OF HEALTH - CARTOON N° 72.

— 100 OR MORE PUBLIC HEALTH NURSES FOR THE
100 OR MORE COUNTIES OF ILLINOIS — TO MARK PROGRESS
AT OUR 100TH ANNIVERSARY. —

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